

Commerce

SOUTHERN TEXTILE BULLETIN

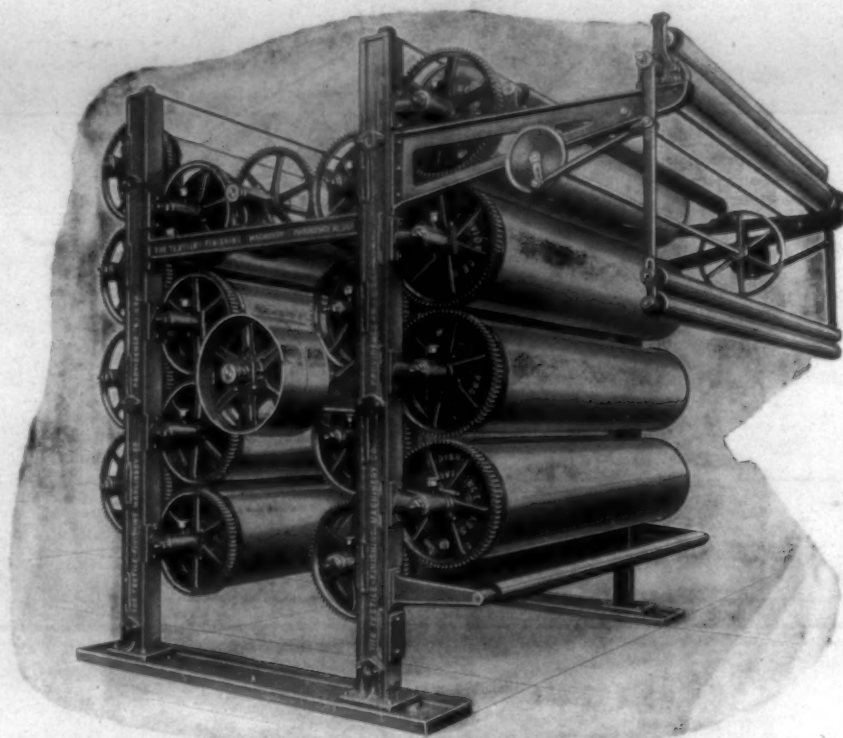
VOLUME 27

CHARLOTTE, N. C., THURSDAY, JANUARY 22, 1925

NUMBER 21

We manufacture machinery
for

Bleaching
Mercerizing
Dyeing
Drying
Printing
and Finishing
Textile Fabrics
and Cotton Warps



Plans and estimates for
complete Plants and Speci-
fications of equipment re-
quired for any known Fab-
ric finish.

The machine illustrated above is an Upright Drying Machine having 16 Cylinders, which can be made of either Copper or Tinned Iron 23" dia. and from 30" on the face to 140" on face. Driven by Tight and Loose Pulley. Machine complete equipped with Standard Folder.

May we have your inquiries?

MAIN OFFICE AND WORKS:
PROVIDENCE, R. I.

NEW YORK OFFICE:
30 CHURCH STREET

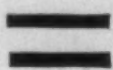
THE
TEXTILE-FINISHING
MACHINERY
CO

CANADIAN REPRESENTATIVE:
WHITEHEAD, EMMANS, LTD.
MONTREAL, P. Q.

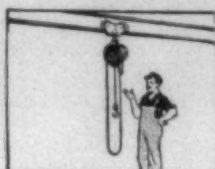
SOUTHERN REPRESENTATIVE:
H. G. MAYER
CHARLOTTE, N. C.



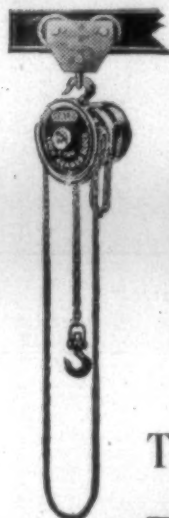
Five Men and a Hand-Truck



equal



One Man and a Yale Spur-Gear Chain Block on a beam trolley.



AND the one man with the Yale equipment will perform the same work in the Safest Way, take up less working space, and do it quicker.

The Yale Spur-Gear Block is the *safest*, *speediest*, *portable* hand hoist.

"From Hook-to-Hook-a-Line-of-Steel"

The new Yale catalog shows you many ways to save money and increase production in your plant by using Yale Chain Blocks and Electric Hoists.

Let us send you your copy

Textile Mill Supply Co.



Everything In Mill and Factory Supplies

Textile Mill Supply Co.

INCORPORATED 1898

CHARLOTTE, N. C.

AGENTS FOR

Graton & Knight
Leather Belting

U. S. Bobbin & Shuttle Co.
Bobbins & Shuttles

DODGE
Hangers, Pulleys, Couplings

Card Clothing

Reeds

WYANDOTTE

Concentrated Ash Textile Soda K.B. Special Ash Detergent

We Carry a Complete Stock and Can Make Immediate Shipmen

Wasco Heddles Conserve Weaving Time

Heddles are constant workers in the prevention of loom production gaps. Extremely light on the warp threads, it is seldom that stoppages are necessary to repair breakage.

These heddles are made of flexible wire steel. Due to a patented process the Heddle eye offers practically no resistance to the thread passing through—it is velvety smooth. Consequently, the consistency of the warp yarns remains undisturbed and a soft feeling woven fabric results.

If you think there is room for improvement in your loom operation, we urge you to send for a few samples. Write—no obligation.



L. S. Watson Mfg. Co.

Leicester, Mass.

Starch



**—and these Stars
have a meaning**

They signify the different grades in which Thin Boiling Eagle Starch is offered to the textile industry.

Being the pioneers in the manufacture of Thin Boiling Starches, we are gratified at the widespread recognition they have received.

Be sure to select the grade best suited to your work. Our knowledge and experience is at your service.

CORN PRODUCTS REFINING CO.

New York

Southern Office: Greenville, S. C.

Starch

Development of the Humidifying Idea



This amount of water vapor
will kill static.

When the humidifying idea was still young, all that was expected of humidifiers was to "kill static." That was a comparatively simple problem. A Relative Humidity of 40 per cent would do it. It didn't take much humidity to do that. Some days it didn't take any.



But it takes this amount relatively
to produce regain.

Then came the study of "Regain." A Relative Humidity of 40 per cent would seldom produce a regain of over $4\frac{1}{2}$ per cent—an unwarranted loss.

Greater Humidifying capacity was tried. Many manufacturing troubles disappeared; many disputes over weight were eliminated. Everybody felt better.



But if cooling is to be considered it
may take this amount of water
vapor relatively for the same room.

But there is still more benefit. Modern high speed textile machinery in operation gives off heat. Evaporation absorbs the heat.

It takes three times the water than to just "kill static"—but it will prevent shutdowns. You didn't build your mill to be shut down.

Humidification of any sort will kill static. We don't recommend the "kill static" installation but we can supply it. It costs less. It isn't worth nearly as much.

Regain and cooling require skillful engineering.



Parks-Cramer Company

*Engineers & Contractors
Industrial Piping and Air Conditioning*

Fitchburg

Boston

Charlotte



Right Regain



SACO - LOWELL

LARGEST MANUFACTURERS OF TEXTILE MACHINERY IN AMERICA



Picker Room, Dunean Mills, Greenville, S. C.

A Pioneer of the Southern Mills, spinning fine yarns and weaving fine goods, uses Saco-Lowell Pickers built by our Kitson Plant.

The results in the other departments depend largely upon the equipment of the opening and picker rooms. Let our Sales Engineers tell you of our modern Opening and Picking Equipment.

Send for our booklet, "Cotton, Opening, Cleaning and Conveying"

SACO-LOWELL SHOPS

1824

1925

NO. 1 FEDERAL STREET
BOSTON, MASS.

SALES OFFICES
1220 MINT STREET
CHARLOTTE, N. C.

MASONIC BUILDING
GREENVILLE, S. C.

SOUTHERN TEXTILE BULLETIN

PUBLISHED EVERY THURSDAY BY CLARK PUBLISHING COMPANY, 39-41 S. CHURCH STREET, CHARLOTTE, N. C. SUBSCRIPTION \$2.00 PER YEAR IN ADVANCE. ENTERED AS SECOND CLASS MAIL MATTER MARCH 2, 1911, AT POSTOFFICE, CHARLOTTE, N. C., UNDER ACT OF CONGRESS, MAR. 3, 1879.

VOLUME 27

CHARLOTTE, N. C., THURSDAY, JANUARY 22, 1925

NUMBER 21

Manufacture and Uses of Artificial Silk

THE use of artificial silks in making great headway in industrial spheres. Whilst artificial silk possesses many properties similar to natural silk, it is by no means a substitute so far as its chemical composition is concerned. Many attempts have been made to prepare the artificial substitutes from various substances, so as to obtain as perfect an imitation as possible at the least cost. The most successful results have been obtained from cellulose, and so far all commercial artificial silks have been produced from vegetable fibre, either in the form of wood pulp or cotton. These silks were originally a French invention; their progress has been accelerated in post-war days when many improvements have been introduced. In these days there is an ever-increasing demand on the part of the public for fabrics which contain lustre and color, and this has materially increased during the last 12 or 13 years. This might be accounted for by the excellent lustre of these materials, and by the improved wearing and washing qualities which these yarns now possess. Their resistance to water has been greatly improved of late. Artificial silk yarns are now introduced into an unlimited number of fabrics, many of which were formerly considered unsuitable for this purpose. By experimenting, manufacturers have now found the most suitable way of preparing and manipulating these yarns to get the best results in the cloth. There is an extensive and increasing demand, both in home and shipping trade, for fabrics which contain this yarn. Artificial silk yarn is entirely devoid of elasticity. It can be stretched to a considerable extent, but it does not regain its former position, as is the case with cotton and worsted. Viscose silk should not, on any account, be placed in damp or moist atmosphere, because the thread has a tendency to become weaker under the influence of moisture. When used in damp rooms it is subjected to an undue stretch, which makes the thread very uneven and causes many cloth defects. Weft yarn may be purchased on tubes ready for weaving or in hanks, in which form it might have been bleached or dyed. For warps, it may be bought in hank or cheeses, in ball warps, or on beams ready for the loom.

If the yarn is supplied in the hank it is wound on to the bobbins by a

Lecture by J. W. Pennington before Blackburn Managers' Association, Blackburn, Eng.

machine similar to that used in winding silk—a light machine with a low speed. The bobbins are driven by a fractional drive of a sensitive character, and so arranged that, if there is any obstruction in unwinding the yarn from the hank, the thread holds the bobbin stationary until the obstruction is removed by the winder. This has the effect of reducing the number of breakages to a minimum. The guide bars are kept very smooth by the use of porcelain, this being the only hard substance which the thread comes in contact with from the hank to the bobbin. The same machine is used for winding weft from hanks to bobbins previous to winding it on to tubes or pirns.

Then we come to the warping process. Here the most suitable machine is the horizontal warping mill. The V-creel should be placed in the centre of the machine so that the angles formed by the threads are equal, the strain being equal on all the threads from both sides of the machine, and so that the thread will not come into contact with the side of the bobbin when being unwound. At the commencement the bobbins should all be of the same size, so that the same degree of speed is ensured, the tension kept equal, and dropping ends reduced to a minimum. Moreover, the material should be handled as little as possible at this stage, for if not sized the filaments are liable to be broken.

The horizontal warping mill is the most suitable, for it enables the warp to be built up in sections without it having to be handled. The machine is so arranged that by moving the reed the sections can be built alongside each other if so required. Also, when the required number of ends is obtained, the weaver's beam, or the back beam for the sizing machine, can be placed behind, and the warp run direct off the mill on to the beam in an even sheet without there being any risk of entanglement.

In the beaming operation it is essential that if flanges were used they shall be set true, and that the width is the same as that which it would occupy in the loom. The warper might also dress all bad threads and knots ready for the next stage of sizing. The warp may be

run with from 20 to 26 ends to the inch on each beam, so as to enable them to open out in the size box during the sizing operation.

As regards sizing, to enable these warp yarns to withstand the friction of the healds and reeds during weaving they are coated with a thin solution of flour and sago, or some such substance as gelatine. The quantity, however, must be sufficient for weaving purposes, and no weighting ingredients should be used, as the yarn would not absorb such materials, but would merely become coated with the substance. Single silk in the warps give the most pleasing effects with from two to eight turns to the inch. With two-fold yarn the lustre is considerably reduced. The success of viscose warp weaving during the last few years is attributed to the efficiency of sizing. Hank sizing is the most common system for small quantities, the hanks being immersed in a solution of size and warm water, and wrung out to remove any surplus size. The yarn is then wound on to the bobbins, made into a warp on to the horizontal mill, and then run on to weavers' beams. With large quantities difficulties arise because the threads, being made of a number of loose filaments, tend to break excessively. A machine is now used in which the ends can be sized and run on to the weaver's beam at the same time, just in the same manner as in slasher sizing. The machine can also be satisfactorily applied to the sizing of colored yarns, provided the colors are fast to washing. The temperature of the size should be kept very low, and the yarn dried before passing on to the weaver's beam. For warps which contain a large number of ends—say, 1,500 or over—a rebeaming machine is necessary. This machine contains a warp dressing frame headstock and a stand to hold the back beams. The threads are slayed from the back beam through a reed and run on to the weaver's beam. Owing to the amount of stretch in artificial silk it is advisable to have as little tension on the back beams as possible, especially when in contact with size.

In weft winding the yarn should be thoroughly dry before winding, and it is a very good plan to have

it stored in an oven at a moderate temperature for about an hour. Any strained places which might be caused in this process are not seen until they are woven into the cloth, when they show up as bright picks. On the other hand, care should be taken not to heat the yarn excessively, or the yarn will become brittle and lively, and will be difficult to weave. In winding cotton hanks it is the custom to shake the hanks upon a pole to open them out. With artificial silk this should not be attempted. The hanks should be opened out by hand and placed upon the swifts in a straight condition. The weighting instrument should be carefully attended to, so that one bobbin may not be wound more tightly than the other. The bobbins should also be fairly firm. Slack bobbins have a tendency to fly off owing to the slippery nature of the yarn. When piecing up broken threads, a sufficient length should be taken off the swift and the bobbin before the knot is tied, and no long ends should be left on the knots. The bobbins should be started gently to prevent sudden jerks. The winding of artificial silk weft in stationary cups is a failure, as it requires a very sensitive builder motion. The better method to reduce strained places is to wind the yarn first from the hanks on to the bobbins before winding on to pirns. Knots should be laid on the largest diameter of the pirn and not in the traverse, so that during the process of weaving the thread is drawn freely from the pirn. Any obstruction on the bobbin caused by knots and broken filaments will show up as bright picks. If possible, the winders should be taught to divide the bobbins into two classes—those free from knots, and those which contain the knots. The latter might be woven into a cloth which would not show up the bright picks to the same degree—say, a two-weft cotton and silk checked 2x2 or 4x4.

Mr. Pennington went on to describe the weft winding machines in detail, and, proceeding to deal with the weaving of artificial silk weft, he said this presents more difficulty than warp. The best results are obtained with the weft wound on to specially-prepared tubes of about $4\frac{1}{2}$ inches long and $\frac{3}{8}$ inch diameter, made from unpolished paper free from roughness and with indented rings at intervals to prevent

(Continued on Page 9)

Points On Fly Frames

MEDIUM to firm bobbins are generally preferable, and should be obtained by the effect of the inward pressure of the presser on the bobbin and the extent to which the roving is wrapped round the presser arm and flyer boss. It is incorrect to assume that a firm-built bobbin always implies stretched material and tight winding, or that a soft-built bobbin suggests slack winding and no stretching, although the tendencies are in these directions. Correct twist in slubbing, intermediate, or roving is of more importance than inserting additional twist just for the sake of hardening the bobbin, and there should be good reason for using more twist for this purpose. More twist reduces the production and may also cause slack winding or stretching. Correct coils per inch on the bobbin and the number of times which the roving is wrapped round the presser arm are important points in connection with the degree of firmness of building up the roving on the bobbin. Occasional bobbins in the same set may be harder built than others owing to an accumulation of dirt or fly in the flyer boss, hollow leg, presser eye, or at the connections of the vertical rod and paddle to the hollow leg, or if front top roller is short of oil.

Coils Round Flyer Presser Arm.

The number of times which the roving is wrapped round the arm of the presser before passing through the eye varies from once to thrice—generally twice. Each mill must decide on the number according to the prevailing conditions. The number is affected by the following circumstances: The turns per inch in the roving; the hank roving; the class of cotton and whether carded or combed; whether the roving is passed quarter or three-quarter way round the flyer boss; speed of spindles; weight of vertical rod compared with presser arm; opinions of the management. Some mills wrap the roving a quarter way round the flyer boss for the back row of spindles and three-quarter way round for the front row, or, instead of this, once oftener round the presser arm for the front row of spindles. For very fine Egyptian roving, say, 20-hank, pressers may not be used, the roving passing direct from the hollow leg to the bobbin without attempting to build up the roving into a firm mass.

Insufficient Taper.

If the taper is insufficient (i. e., each layer wound on not shortened enough) slattering will occur, the end breaks oftener during building a set, more waste at fly frame and next process, ends of layers are more likely to be disturbed during conveyance from one process to another.

A satisfactory taper is that angle which permits of sufficient roving to be wound on to prevent doffing and creeling too frequently, with attendant piecings at the next ma-

chine, and yet not allow the end coils of any layer to slip over the previous layers.

Excessive Taper.

Too much taper will result in the full bobbin having less material on, frame will require doffing oftener, production will be decreased, more conveying or full and empty bobbins from one process to another, and more creeling at the next process. It is preferable to have the taper a little too much or steep than otherwise, even though a trifle less material will be wound on the bobbin.

Unequal Tapers.

Unequal tapers on the same bobbin will result if the poker bar is not exactly horizontal when the presser eye is opposite the centre of the lift. In occasional instances the top taper is designedly a trifle less steep than the bottom taper in order to increase the amount wound on, but there must be no running over of the end coils.

Length of Taper.

The following dimensions are from actual practice:

Hank.	Dia of Empty Bobbin.	Dia. of Full Bobbin	Length of first Layer.	Length of last Layer.	Length of Taper
.534 slubbing	1 5/8"	5 1/4"	10 "	5 1/4"	3 "
1.3 Inter.	1 3/8"	5 1/4"	10 "	5 1/4"	3 "
3 roving	1 5/16"	3 3/8"	6 7/8"	3 3/8"	1 11-12"
4 "	1 5/16"	2 3/8"	6 7/8"	3 3/8"	1 11-12"
3.5 "	1 7/16"	3 3/8"	6 7/8"	4 1/4"	1 11-16"

The 3.5-hank roving represents the practice in a different mill to the previous examples.

To calculate the amount by which each layer must be shortened at each end, subtract the length of the final layer from the first layer and divide the result by twice the number of layers.

Altering Amount of Taper.

The shorter the length of poker bar from the slide to the pinion which actuates the bar, and the greater will be the taper. The larger the spur wheel which gears with the under-side of the poker bar, and the greater will be the taper. Larger the taper bevel on the horizontal stud (Platt's frames), the less will be the taper. The amount of taper is rarely altered so far as the two bevel wheels and the poker bar spur pinion are concerned, as these wheels are arranged initially by the machine makers to serve for the probable range of hank roving, hank slubbing, etc., to be produced on that frame.

Coils Per Inch.

The coils per inch depends on whether the cotton is carded or combed, the amount of twist, the type of cotton, and whether slubbing, intermediate or roving. The coils in the first layer wound on the bobbins should touch one another to prevent the bare bobbin more than just showing between adjacent coils. Approximately good results are obtained by multiplying the square root of the hank by, say,

7, 8 1/2 and 10, depending on whether slubbing, intermediate or roving is being dealt with. The coils per inch for the five examples given in connection with the "Length of Taper" are as follows: .534-hank slubbing, 6.6 coils; 1.3-hank intermediate, 10.6; 3-hank roving, 23.3; 4-hank roving, 24.7; 3.5-hank roving, 19.35. In another mill producing 5-hank roving, there are 23 coils per inch. The coils in each successive layer are far from always being wound between the coils of the preceding layer. It is an advantage for each mill to make tests as to the most suitable number of coils per inch according to the conditions previously stated, together with the degree of tightness of winding, and the dimensions and contour of the cone drums.

Ridgy Bobbins.

When the layers are not level due to the coils being unequally spaced, it is the result of the lifter rail not being actuated at an even speed. The causes are as follows: Strike bevel having teeth broken out, become loose and incorrectly set; jumpy action of cone belt; bobbin

too shallow or too deep in gear with the poker bar; twin bevels, or copy bevel working between same, not secure or badly adjusted; insufficient taper of bobbins; lifter slides fitting too tightly in the spring-piece grooves at the extremities of the lift, or not properly cleaned and oiled; dilatory reversal of cradle when pigeon lever is disengaged; excessive tightness or slackness of any shaft connected with driving the lifter rail.

Individual bobbins may run over and under owing to the following causes: bobbin not fitting over the square lug properly throughout the building of the set; pin broken in boss of flyer; bobbin bevel set too deep in gear; flyer eye in the paddle badly worn.

Cone Belt Slipping.

This fault shows itself in the end running slack from the front rollers to the flyer tops, or the ends becoming slack when the bobbin rail reverses and then the slackness is gathered up before the next reversal. The causes of the cone belt slipping are as follows: Belt too dry, too broad, too slack, too narrow, or very dirty; balancing levers for bobbin rail unevenly weighted or binding; bolsters or collars not properly oiled; collars clogged with waste; lifter racks binding in the slides; collars out of plumb; obstructions in between any of the teeth of the builder motion gearing, including the poker-bar teeth; any of the gearing from the bottom cone drum binding on the studs or geared too deep. Endless cone belts are largely used with good results.—Textile Recorder.

Garside's Cotton Figures.

Boston, Mass.—Alston H. Garside, director of the Cotton Statistical Service of the Merchants National Bank of this city, computes the amount of American cotton and linters available for movement into sight after January 10 as 3,402,000 bales taking as a basis of calculation a lint crop of 13,153,000 as estimated by the Government, or 3,749,000 taking as a basis a lint crop of 13,500,000 bales as estimated by some members of the trade. The amount available to come into sight at this time last season was 2,902,000 and the season before last 3,027,000. The amount actually brought into sight after January 10 last season was 2,571,000 and the season before last 2,454,000.

Mr. Garside computes the amount available for spinners' taking after January 10 this season at 8,487,000 taking as a basis a lint crop of 13,153,000 as estimated by the Government, or 8,834,000 taking as a basis a lint crop of 13,500,000 as estimated by some members of the trade. The amount available for spinners' takings at this time last season was 6,349,000 and the season before last 6,875,000. The amount actually taken by spinners after January 10 last season was 4,960,000 and two years ago 5,219,000.

rail unbalanced or binding in the spring-piece slides; too much backlash or unequal setting of the lifter gear wheels; broken teeth in lifter wheels; lifter weights obstructed or binding, or levers unequally weighted.

A ridge at both top and bottom of bobbin may be caused by the poker bar not being allowed to move freely in its slide, or the lifter shaft wheel becoming loose.

Running Over and Under.

This fault may occur all along the frame, more or less, from the following causes: Ratchet wheel with badly worn teeth or obstructions at roots of teeth frame stopped to piece an end up just as the bobbin rail is on "the change;" one or more lifter slides binding at extremities of lift; projections of cradle worn round which engage with pigeon levers; cotton or dirt in between teeth of poker bar, poker bar pinion, cone-belt rack, or cone-belt rack pinion; a tooth broken in one of the lifter-rail racks or lifter-rack pinions; poker bar not properly connected to the slide bracket; one of the chains of the bottom cradle broken, or one of the springs too weak; stray bobbins under bobbin-rail weights or racks; ratchet-wheel catches badly worn; clumsy joint of cone belt; sections of lifter shaft become loose at the couplings, resulting in the bobbins jumping up and down; sections of spindle shaft become loose at couplings, resulting in the flyers and spindles moving up and down; poker-bar pinion set

HOUGHTON

A SERMON

by Chas. E. Carpenter,

Near Editor

Text: *Most wage earners spend all they get—*

BABSON

FINE!

Now if we can only bring about some method by which the wage earner will produce the most for what he gets, we will have conditions ideal.

When an employer buys labor, he wants not action; not manual force; not human endeavor; not applied intelligence, so much as he wants the labor which he buys to produce the maximum quantity of product.

If the wage earner is right in wanting the most money for his time, the employer is also right in wanting the most production for his money.

Loud and prolonged applause from the employers.

But I have known employers who have been keen on this maximum of production stuff, when it comes to obtaining the most out of labor, who follow, "A penny wise and a pound foolish," policy when it comes to supplying the labor with the proper facilities and materials to effect the maximum production.

Feciferous applause and whistling from operatives.

I know a mill which installed over a million dollars' worth of the latest up-to-the-minute machinery—the best and highest priced made. Then they awarded the belting contract to the lowest bidder and obtained 3% less production than had they followed the same policy in the purchase of their belting that they followed in the purchase of their machinery. The loss occasioned by the use of inferior belt would have paid the additional cost of VIM Leather Belt, several times a year.

They use tallow for softening, because they "know what tallow is," little thinking that they

don't and that tallow is generally adulterated and when sold pure is the exception. They use natural olive oil, because their grandfathers used olive oil before them, forgetting that no pure olive oil is admitted free of duty and that the law demands that all industrial olive oil be denatured. They use lard oil, or red oil on wool more as a habit and because it is too much trouble to try anything else. They have a sort of a notion that there is something mysterious about a product made best for one particular use and cling to the old-fashioned notion that natural products are best, which is the equivalent to patronizing an herb doctor when you are ill. They believe in chemistry, but in the other fellow's mill. Chemists and chemistry frighten them and cause them to imagine that their ignorance might be exposed, and that things which they have been accustomed to doing and which have made for their success, are all to be disturbed and a general bothersome condition is to be substituted.

All of which is wrong. Houghton Products are not mysterious—not half so much so as the natural products—and they call for no revolutionary methods in the mill. While founded on science, of course, they do not run contrary to common sense practice, and they help the employer obtain from his high paid employees and costly plant equipment, the maximum return on each dollar thus expended.

Deafening applause.

Mr. Hy Ball, of the Black & White Scotch Cheviot Mills, moved that a rising vote of thanks be extended to the preacher, which motion was duly seconded by Mr. Ver Mouth of The Cocktail Textile Corporation. After a few remarks from Mr. C. T. Shaker, of the Shaker Cloths Corporation, the motion was unanimously carried amidst much applause, and the meeting adjourned.

E. F. HOUGHTON & COMPANY

Works: Philadelphia—Chicago—Detroit

Distributors Located At

ATLANTA, GA.
1001 Healy Building
Phone: Walnut 4807

GREENSBORO, N. C.
P. O. Box 81
Phone: Greensboro 1990

GREENVILLE, S. C.
511 Masonic Temple Bldg.
Phone: Greenville 2316

ST. LOUIS, MO.
418 N. Third St.
Phone: Olive 3559

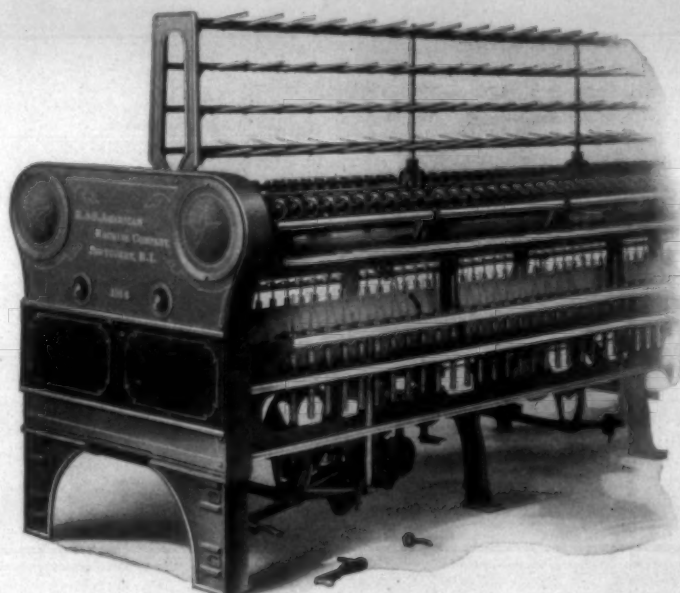
AND IN EVERY OTHER TEXTILE MANUFACTURING CENTER OF THE WORLD

Oils and Leathers for the Textile Industry

COTTON MACHINERY

IMPROVED TWISTERS

FOR WET OR DRY TWISTING



The illustration above shows the Head End Section of our Improved Twister. This machine, like our Spinning Frame, is of Heavy Construction, which insures light running and reduces vibration and cost of upkeep. We build these machines in all Gauges and for any number of ply with either Band or Tape Drive. There are many distinctive features in our machine which we describe in a Special Bulletin.

*List of Users and Descriptive Bulletin
sent on request*

H & B

American Machine Co.

Pawtucket, R. I.

Southern Office

814-816 Atlanta Trust Co. Bldg.

Atlanta, Ga.

Recent Development of New Dyes and Chemicals Abroad

Address by Chas. P. Walker before Southern Section, American Association of Textile Chemists and Colorists, Charlotte, N. C., January 16, 1925.

The very few words that I have to say to you this evening will be concerning dyes and allied products of recent developments.

Some of these products I have used, the others have come to my notice through my associations.

In the short time necessarily devoted to this talk, it will be impossible to go into great detail, but if I succeed in arousing interest in products that spell "progress" I shall feel that I have not spoken in vain.

The outstanding purpose of this association is to gather all available information on the application of products whereby textiles may become better and it would seem to me that any improvements in the finished product must necessarily include better dyeing.

For many years past the word "Indanthrene" has stood for a superior grade of dyes applied to cotton. Furthermore, it was a trade name covering the products of one dye maker.

The trade got to the point of dissociating the name from the maker and associating it with the product.

The word Indanthrene now signifies a class of vat colors of a specific fastness and that, the highest, irrespective of who is the manufacturer.

Among the new products to be mentioned are two Indanthrene colors, **Indanthrene Brilliant Blue R**, which is a very clear marine blue, and **Indanthrene Blue Green B Double Paste**, which is the turning point between a blue and a green.

Another important vat color of less recent origin is **Hydron Pink**, a very clear shade of pink of which there are two marks. One of these marks has been produced in America.

A matter of great potential interest is the dyeing of Celanese, one of the more recent artificial silks. This product has apparently no affinity for the usual cotton colors.

The British Celanese Company, in conjunction with British Dyes, Ltd., brought out a series of colors under the mark S. R. A. These colors dye only Celanese, leaving all other fibres clear, and with them it is possible to produce multi-colored effects in greater variety than heretofore.

Printing is a branch of textile production that has called for intense study and apparently there are still improvements to expect.

So far, the printing of fast colors has meant that the beauty and clearness of shade has to be sacrificed.

We now have available a series of colors under the name of "**Rapid Fast Colors**," which combine the beauty of basic dyes with the fastness of vats and of further interest in that they are infinitely simpler in application than the fast colors now in general use.

No preparation of the goods is required, nor do the prints require prolonged steaming for development, in fact, these colors develop overnight simply by hanging.

The range so far includes three shades of Red—Bordeaux, Blue, and an Orange.

Closely allied to these colors are the **Naphthols**, for the dyeing of cotton. The well known Naphthol Red now has several relatives.

Greishiem offers seventeen Bases and seven Naphthols with which it is possible to produce a full range of shades—green excepted.

Of particular interest is the yellow shade produced on the Yellow Base with Naphthol A S G, which has the distinction of being the fastest yellow so far produced, particularly to light, and is also of surpassing clearness.

Let us now turn to one of the, if not oldest, dyes known, **Indigo**.

One would suppose that at its age, nothing new could remain to add to its history. However, we now have indigo in such a form that Hydro-sulphite is not required under the name, **Indigosol**.

Several marks are offered, representing advancements in refinement.

So far, this product has only been practically applied to wool, though laboratory work would indicate that its application to cotton is merely a matter of time.

While at present its cost is high, it has the advantage of simplicity of application which will appeal to the dyer of occasional odd lots.

Of passing interest, though not for application to textiles, are the **Helio Fast Colors**, for the production of lakes used in paints.

These lakes are exceeding fast to light and are very bright in shade. We believe future shades of "Duco" will call for some of these colors.

Turning now to products other than dyes, we find one of great interest, with which the horror of moth holes is removed. I refer to **Eulan**, used for giving wool a permanent moth proofing. This product is not in any sense an insecticide.

In the realms of textile finishing, there are many products noticed every year. Mostly they are just new names.

Stoko Tablets, however, are an innovation which has proved of great interest in Europe.

They are used in all cases where fats and waxes are called for in sizing of yarns or piece goods.

Since the introduction of basic colors, Tannic Acid has been the chief medium in preparing cotton for the dyeing of these bright colors, being used in conjunction with Antimony in some form involving a long dyeing process.

While beauty of shade is produced the price paid is, that the colors rub, the fibre gets harsh and the shade is not very fast to light.

(Continued on Page 23)

Manufacture and Uses of Artificial Silk

(Continued from Page 5)

the yarn from slipping off. When a suitable pirn has been secured, the shuttle should be specially prepared to receive it. The smooth, springy and slippery nature of this weft makes it difficult to deal with. It unwinds too easily, thereby causing curls, slack picks, bad selvages, tight picks, marked and dirty weft. The ordinary method of placing a brush in the shuttle eye to prevent the weft from curling is not sufficient, and the placing of stiff brushes down the side of the shuttle similar to those used for polished cotton is too harsh and severe on the thread. The best methods are those which exert a slight and even pressure upon every coil of yarn as it is unwound from the tube, so that it would never have the opportunity of flying. An old method is to place an elastic tape about $\frac{1}{4}$ in. wide in the side of the shuttle a little behind the base of the tube, and the other end into the bottom of the shuttle near the pot eye. This tape is drawn tight to press against the yarn for the full length of the tube. This has proved very effective in the past, and it answers very well until the elastic wears and frays out or becomes slack. Still another method is to place a piece of upholstery velvet inside the shuttle, by means of seccotine or glue in such a way that the tube lies against it for the full length. The velvet bed should extend from the shuttle eye to the base, and when correctly fixed it is both effective and durable.

To prevent the weft from flying up, pins might be placed near the eye, or tunnel shuttles employed. Instead of using velvet, the sides of the shuttle should be lined with fur—e.g., rabbit fur. The picker should be perfectly smooth, and the front of the shuttle box covered with soft, smooth cotton cloth to prevent the cutting and marking of the weft. The weft fork and the grate should also be kept smooth, and the selvages should not be too tight. Nor should the picking motion be too jerky, and a good checking of the shuttle is required. If these points are watched there should be no difficulty in weaving artificial silk weft.

Cutting of the weft is another source of trouble, especially in broad looms and where the reed space is full up. Two causes of this are: The weft fork cutting the weft on the grid, and the temples touching the reed. On account of the liability to balloon, the weft is very often kept down from touching the spindle.

It was explained that in weaving warp yarn there should be no great difficulty if properly sized. When trouble occurs they are different from those met with in weaving the weft. Most of the two-fold artificial silk warps will weave without being sized, but the lustre is not so good as that obtained by using single yarn. Folded yarns are only used for the production of special effects, for fabrics which require a dry finish, and by those who did not know how to get the best re-

sults from single yarn. Soft, twisted single yarn is the best because it covers better, and when finished the figures look very full as compared with those made from two-fold yarns. The best kind of healds are those which contain a metal eye to reduce the friction on the thread as it passes through, but these are expensive. Cotton healds might be successfully used when knit to pattern or employed as adapter healds. They should be smoothly varnished, however, and free from lumps. The reeds should be well-polished flexible wire, of round or oval section. The sheds should not be too great, and the tension on the warp rather on the tight side because the ends have a tendency to hang in the shed, causing the shuttle to run into them. The healds should not be tightly sprung. The greatest difficulty in weaving this material as warp yarn is the chafing of the threads. This results in the formation of "runners" or beads of broken filaments behind the reed. Where the silk is woven all the way across the reed should be reduced in counts as much as possible, and more threads per dent inserted to reduce the friction. In cases where the silk is combined with other materials, such as voile yarn and silk in stripe from, and where above 50 dents per inch (100 reed) are required in the ground portion, it is advisable to have reeds made to pattern with the counts in the silk portion reduced to half that of the ground portion. This becomes necessary where the voile effect is required in the ground and is to be dented one per inch, while that of the silk requires to be dented either 2's, 3's or 4's in half-counts of the reed.

Sized yarns which have to be kept in stock for some time should be kept in dry rooms, as the size has a great affinity for moisture and seems to disappear in a damp room. The great secret is to keep the yarn dry, both in the weaving shed and store rooms. In weaving, the warp should not be allowed to rub along the race board, and the shedding so timed that the strain and friction on the warp is reduced to a minimum by beating up with the sheds crossing late. If the ground is plain, this might be worked by healds and plain tappets under the loom, timed earlier than the silk warp controlled from the dobby.

Temple rollers also should have as short pins as possible. The pins should also be very fine, or covered with fine tissue paper. If the fabric does not contract very much, a roller made of wood, with rubber coverings, serves the purpose exceedingly well. There is now an excellent roller temple on the market which has a rubber covering and about $\frac{1}{4}$ inch at the side fitted with pins for holding on the selvage only.

The emery roller on the ordinary Lancashire loom is too rough, and for delicate fabrics it should be covered with thin tissue paper or sand paper to prevent it from disturbing the yarns in the cloth.

The silk yarn should never be placed on the same beam as the other yarn where it is used in stripe form.

"Get-To-Gether"

April 6, 7, 8, 9, 10, 1925

Twenty-first Annual Knitting Arts Exhibition

The Commercial Museum, Philadelphia, Pa.

UNDER THE AUSPICES

**NATIONAL ASSOCIATION OF HOSIERY
AND UNDERWEAR MANUFACTURERS**

More than two hundred manufacturers and dealers in Knitting Machinery, Knitted Underwear and Outerwear, Yarns, Mill Equipment and supplies will again show their products at the 1925 Knitting Arts Exhibition.

The ever increasing number of exhibitors is sure proof that the trade goes to this market to buy and view the new devices and improvements that manufacturers and jobbers have to offer.

Old exhibitors will tell you this Exposition is the most practical, successful method of merchandising they know.

Held in connection with the annual meetings of the National Association of Hosiery and Underwear Manufacturers it affords a wonderful opportunity for buyers to attend these meetings and at the same time view your product.

If you seek to widen your market you will be represented by an exhibit at this creator of new business.

DON'T MISS THIS OPPORTUNITY

The cost of a space measuring 10x10 or 100 square feet is \$150 and includes Sign, Floor Covering, Desk and three chairs and general decorations all ready for your exhibit.

What better method of advertising will place you directly in touch with thousands of real buyers at so small an expenditure?

—Apply At Once—

Personal Direction Chester I. Campbell

Address all communications to Executive Offices
329 Park Square Building, Boston, Mass.

HEAVY LOADS



LADEW Leather Belting has mighty *reserve strength*. Therefore, it is well fitted to handle heavy loads and the steady strength taxing demands of peak production.

This reserve strength is given Ladew belts by careful selection of hides, and skillful tanning and currying. It is the result of good belt making since 1835.

Because of this "know how," Ladew belts shoulder the loads without slipping or letting go. Without losing their natural stretch. Without excess tension. For hard drives, Ladew belts assure efficient, economical transmission.

EDW. R. **LADEW** CO., Inc.

BELTING AND OTHER LEATHER PRODUCTS

Since 1835

29 MURRAY STREET

NEW YORK CITY

Atlanta, Ga.
Boston, Mass.
Chicago, Ill.
Cleveland, Ohio

Glen Cove, N. Y.
Newark, N. J.
Philadelphia, Pa.
Pittsburgh, Pa.



Yarn Lustre in Relation to Twist

DR. A. E. OXLEY, of the Shirley Institute, England, addressed a large meeting which was held recently at the University College, Nottingham, his subject being "The Lustre of Double Yarn in Its Relation to Twist." Hosiery manufacturing interests were mainly represented in connection with the assembly, which was presided over by Mr. Stanley Bourne, who referred to the invaluable work which has been accomplished in connection with the Cotton Research Association of the Council, of which he was one of the first members. Cotton, he observed, had serious rivals in silk and silk's younger brother, which was mis-called artificial silk. Despite that, however, cotton had maintained characteristics of its own and no rival could completely knock it out. Still, it behooved those engaged in the cotton trade to render their products as attractive as possible, and one of the principal attractions which they could impart to cotton was that it should have good lustre.

Irregularities of Twist.

The consideration was emphasized by Dr. Oxley that it is through irregularities of twist in single yarns that irregularities of twist must necessarily occur in double yarns, and that it is owing to such irregularities, partly due to the doubler's fault, that irregularities of the lustre or finish in knitted or woolen fabrics occur. In affording an explanation regarding the processes connected with the mule and ring spinning of cotton, he directed attention to the primary fact that the last-named process is distinctive from the former in that it is continuous, always spinning and always winding. There was a decided difference in the quality of yarns produced by the two methods, a notable feature being that, upon the whole, ring-spun yarn is not so level as mule-spun yarn. In considering ordinary doubled yarn three factors were involved, the first of these relating to the direction of the doubling twist, the second to the amount of the doubling twist, and the third to the amount of the single twist. The first factor did not, however, enter into the question at all from the yarn point of view, though it had a great influence upon the appearance of the resulting fabric, especially when two doubled yarns having opposite doubling twists were used in the same fibre. Entirely different reflection effects are produced from the different orientations of the fibres in the two yarns when such a fabric is observed from any given point. There was importance attaching to the other two factors, inasmuch as the position of the fibres in the finished yarns depended both upon the twist in the singles and the twist in the doubles, every change of doubling twist involving an alteration of singles twist.

Photographic and Photometric Work.

The camera had been brought into effective use in the work at Didsbury to demonstrate the hardness of twist in ring and mule-spun

yarns, it being possible by the means adopted there to take a photograph in one picture of yarn to the extent of 100 yards. In ring-spun yarn there was no sign whatever of periodic twist, a question of especial importance being regarding what occurred to the double yarn when two ring yarns or two mule yarns were doubled. Every alteration of doubling twist involved an alteration of single's twist. In an ordinary double yarn, the addition of one doubling twist to any given length theoretically involved the removal of one twist from each of the singles, but in practice that was certainly not the case, since the two singles were pressed together and interfered to some extent with their mutual relations. It was, therefore, to be expected, he observed, that the lustre of a doubled yarn depended upon both the doubling twist and on the twist of the singles. Investigation had shown that such was the case, one of the aims which had underlain the work being to establish what relationship between the twist of the singles and the doubling twist corresponds with an optimum value of the lustre. Photographic and photometric methods had been pursued in connection with the investigations, the photometric arrangements actually enabling measurement to be taken of the light reflected from double yarn. The lustre of cotton yarn was regarded to be its potentiality of reflecting, in a fixed direction, light falling upon it, and investigations had established a striking relationship between the doubling twist and the lustre of the yarn. In relation to the diagram which he presented in illustration of the matter, he pointed out that each curve rose to a maximum as doubling twist was put into yarn.

A Point of Limitation.

Beyond a given point, however, any increase of doubling twist involved an impairing of the lustre, until, ultimately, when an abnormally high doubling twist obtained, the doubled yarn was no more lustrous than the single. From the circumstance that the lustre of a cotton yarn must depend not only upon the intrinsic lustre of the fibres themselves, but also upon the arrangement of the surface fibres in the yarn, the physical cause of the connection between lustre and doubling twist must be looked for in the change of fibre arrangement which occurred when the doubling twist was modified, the conclusion reached being that the twist of the single yarn constituted an important factor, as every modification of the doubling twist necessarily involved an alteration in the twist of the singles composing the yarn. It had been demonstrated in connection with the investigations on the subject, following from a consideration of the irregularities present in single yarns, combined with the irregularities of doubling twist, that a certain loss of lustre was due to irregularities occasioned during

(Continued on Page 31)

Various Views of Child Labor Amendment Advocates

AS a matter of interest we have compiled statements made at different times by the most active advocates of the Federal Child Labor Amendment. Not only do their statements differ but they show plainly the falseness of their present statements that they have no desire to control labor on the farms or in the homes.

The following claim that only law would be the former Federal child labor law:

Would Probably Only Limit Work Up to 14

Congress probably will not limit children's work to 18 years, but only up to 14 years of age.—Mrs. Carrie Chapman Catt at Louisville, Ky.

The Purpose of the Amendment

First, the purpose of the amendment is to validate national child labor laws such as those of 1916 and 1919, which were declared unconstitutional. In 1917-18 and 1920 Federal exercise of the power to regulate, limit and prohibit child labor was in effect with great benefit.—Geo. W. Alger, Chairman, New York Child Labor Committee.

Probable Standards

It is highly probable that the standards set up in the first two Federal Child Labor Amendments would only be slightly increased, that is, prohibit the labor of all children under 14 in all industrial occupations, regulate the hours of labor of all children 14 to 18 years of age, and limit the work of all persons 14 to 18 to morally and physically safe occupations.—Jean MacAlpine Heer, Publicity Agent, National Child Labor Committee, in Barre (Vt.) Times.

Miss Todd Outlines Law

"The child labor law, which already has been declared unconstitutional, is the one which the leaders in the battle for children will seek to have passed, if the amendment carries," said Miss Todd. "That bill provides that no child under 14 years of age shall be employed in factories or offices, that children between 14 and 16 years of age shall not work more than eight hours a day, and that children between 16 and 18 years of age shall not be employed in trades considered dangerous or unwholesome."—Los Angeles (Cal.) Times.

The following seem to differ considerably with the above statement:

To Prohibit All Work Under 18

Prohibiting all work of those under eighteen is our solemn duty.—Mrs. Joan Nulton Helbent, Boston, Mass.

No One Should Work Under 16

I am glad to subscribe to and suggest as a standard for today that no child should be permitted to work under the age of 16, that no child between 16 and 18 years of age should be permitted to work more than six hours a day.—Miss Agnes Nester at Conference on Child Labor Standards.

Entire Time Up to 16 Needful for Education

"A community can adjust itself to the idea that the entire time of young people is needed for education up to the age of sixteen. It is very easy for industry and commerce to adjust themselves. It is usually very easy for the economics of the home to adjust itself."—Prof. Chas. E. Chadsey before Conference on Child Labor Standards.

Prohibit Employment Under 14

"An age minimum of 16 for employment in any occupation, except that children between 14 and 16 may be employed in agricultural and domestic service during vacation periods."—Standard adopted at Conference on Child Labor Standards with Owen Lovejoy as Chairman of Committee.

Motion to Exempt Work for Parents

"But no law enacted under this article shall affect in any way the labor of any child or children on the farm of the parent or parents."—Motion made in Congress but voted down by order of Amendment Advocates.

Reasonable Age Minimum 16 Years

"A reasonable minimum age for entrance into industry would be 16 years. This should apply to all common work, such as that offered by factories, mills, canneries, offices, stores, laundries, restaurants, and to all the miscellaneous occupations entered by children. For the first two years at least—namely, from 16 to 18 years of age—no child engaged in ordinary industrial processes should be employed to exceed six hours a day."—Owen Lovejoy before Conference on Child Labor Standards.

Sought to Include Children Who Worked for Parents

"The children often work with their parents and are not on the pay roll and are not held to be 'employed,' and we feel that it [employed] is a dangerous word to use."—Miss Grace Abbott before House Judiciary Committee.

Congress Would Exercise All Power

"A few minutes ago the Senator from Ohio (Mr. Fess) indicated his belief that the Congress could always be trusted never to go too far. I wonder where he, or any one else, gets such implicit confidence in Congress in that regard? I have never known the Congress to fail to exercise the maximum of power in every matter entrusted to it."—Senator Wadsworth in Congressional Debate.

Not An Industry of Backward States

It is not an industry of backward States; it is legal modern efficiency in the most progressive States of the Union. You find it in Maryland and Virginia; but it is at its worst in Michigan. I saw it in New Jersey and in Tennessee. It is in Connecticut and Colorado, in California, in Ohio, in Texas. To catch all this vicious practice, you would have to visit most of the States."—Harold Carey in Collier's Weekly.

The following say that the law is aimed at Southern cotton mills or that the law is needed to regulate the employment of very young children:

Aimed At Southern Cotton Mills

According to Mrs. Helen Todd, the bill is aimed particularly at the cotton mills of the South, where conditions have become intolerable.—San Francisco Examiner.

More Than Million Children in Southern Mills

"More than 1,000,000 of tender age are slaving in the cotton mills and factories of the South. Hundreds of thousands are working in similar factories in New England."—Ex-Congressman Chas. H. Randall before Lankerhein (Cal.) Woman's Club.

Will Remove One Million From Competition

It (Child Labor Amendment) will enable us to take out of competition with the American adult worker about 1,000,000 of our rising generation who ought to be in our schools.—Secretary of Labor J. J. Davis in Labor Day Address at Fort Hamilton, N. Y.

The following make quite a different statement:

Not for Protection of Children Under 12 or 14

"The Child Labor Amendment is not so much for the protection of children under 12, or even 14, as for the protection, development and education of children 14 to 18 years of age. There are, I think, very few if any children under 12 in our Southern mills and no large number under 14. The trouble with us is that we think that a law that merely keeps children under 14 out of mills and factories is the last word in child labor legislation.—Wiley H. Swift, of the National Child Labor Committee, in an address at Pittsfield, Mass.

More Child Labor in Agriculture

"Most of our gainfully employed boys and girls, as the census reckons them, are engaged in agriculture; most of these are on the home farm, and most of the children in non-agricultural occupations are fourteen or older.—Extract from book by Raymond G. Fuller, Secretary, National Child Labor Committee.

Evils of Twenty and Forty Years Ago

"Nine out of ten persons still think of child labor in terms of bygone conditions or of conditions that represent only a fraction of its total amount today. Nine out of ten think of it in terms of the spectacular-horrible conditions calling for drastic methods of reform. Such thought of it does not fit the present situation. The worst evils of forty, twenty, even ten years ago have been removed or vastly abated, and the method of prohibitory legislation has played an effective part in this accomplishment."—Extract from book by Raymond G. Fuller, Secretary, National Child Labor Committee.

Child Labor Committee Disclaim Desire to Regulate Rural Child Labor.

Opposed to Regulation of Rural Child Labor

Will Congress attempt to regulate employment of children on farms?

"The National Child Labor Committee includes in its organization citizens of every State who are known to be leaders in child labor reform and yet are definitely averse to any such exercise of Federal power.

"So far as we know, not one of them would favor such an exercise of Federal power."—Owen Lovejoy in Bulletin of National Child Labor Committee, Sept., 1924.

The following seem to indicate the insincerity of the above statement:

To Get Rid of Rural Child Labor

"The great advantage for us in a discussion of this English measure is that it shows us a way to standardize education in the interest of the future and at the same time get rid of the one thing we have never dared attack—rural child labor."—Statement of Miss Julia Lathrop during Conference on Child Labor Standards.

(Continued on Page 16)

John W. Hepworth & Company

N. W. Cor. Lehigh Ave. and Mascher Street
PHILADELPHIA, PA.

Makers of

Two-Thread Elastic Lock Stitch Looper

Also Attachments

for changing our
single stitch
loopers into the
two-thread
loopers.



"Shedding—Why?"

Is discussed in our latest literature.
Cooperation will readily eliminate this trouble.

SEYDEL CHEMICAL COMPANY

Jersey City, N. J.

S. P. Rakestraw
La Grange Georgia

W. W. Greer
733 Augusta Street
Greenville, S. C.

AMERICAN TRUST CO.

BOND DEPARTMENT

Specializes in Textile Corporation Finance.

Negotiates purchase and sale of Cotton Mills.

Offers conservative investments in Textile preferred stocks to yield from 6 1-2 to 7 1-2 per cent.

BOND DEPARTMENT

American Trust Co.

FRANK B. GREEN, Manager
CHARLOTTE, N. C.

Carding and Spinning

By George M. Ivey

Copy Revised for Third Edition.

(Continued from last week)

All warpers have a measuring device, driven by a measuring roller which turns one time for every one-quarter yard which passes over it. By means of worms and gears this motion is reduced so that from 2,000 to 3,000 yards, generally 3,000, have been run when the machine stops. This amount of yarn is called a wrap. The beam may hold 6, 8 or 10 wraps, according to the number of yarn and the size of beam. If we know the number of yards in a wrap, and the number of ends, we can calculate the weight of yarn.

Rule.—Multiply the number of yards in a wrap by the number of wraps and the number of ends, and divide by 840 multiplied by the number of yarn.

Example.—Number of ends 480; number of yarn 20; number of yards wrap 3,000; number of wraps 5; what is the weight of yarn on beam?

$$\frac{3000 \times 5 \times 480}{840 \times 20} = 428.5$$

It takes about 60 cubic inches to hold a pound of yarn. To find the cubic inches, we first find the number of square inches in a cross section or a circle of the required diameter. This is done by multiplying the square of the radius (half of the diameter) by 3.1416. After getting the area of the circle, we must subtract the area of the circle represented by the barrel, and then multiply by the length between the heads.

Example.—Diameter of head 26"; diameter of barrel 9"; length between heads 54 1/4"; what is the number of cubic inches, and what will a beam weigh?

$$\begin{aligned} (13)^2 &= 169 \\ 169 \times 3.1416 &= 530.93 \\ (4\frac{1}{2})^2 &= 20.25 \\ 20.25 \times 3.1416 &= 63.61 \\ 530.93 - 63.61 &= 467.32 \\ 467.32 \times 54\frac{1}{4} &= 25352 = \text{Number of square inches} \\ 25352 \div 60 &= 422 \text{ pounds} \end{aligned}$$

The beams have a barrel 9" in diameter, and are 54 1/4" between heads. A full beam, of the following dimensions, will weigh as follows:

26" head, for yarns up to 20's	430 pounds
24" head, for yarns up to 30's	360 pounds
22" head, for yarns up to 40's	293 pounds
21" head, for yarns up to 50's	260 pounds
20" head, for yarns up to 100's	226 pounds

These results are only approximately correct. The weight will vary with the size of the spool, number of yarn, number of ends and speed of machine.

Unequal Lengths.—It is probable that this is the chief trouble in the warping department. The writer has run across it in a number of mills. In every case it is not the fault of this department, but is sometimes due to unequal tension on the beams at the slasher. Where this is not the case, it is usually due to a very slight variation in the diameter of the measuring rollers. The variation of only 1-100 of an inch will make a vast difference in the total length of the yarn, for the roller turns four times for each yard, and on many beams there are 24,000 yards, multiplying the error 96,000 times. Assuming that the beam has 8 warps, or 24,000 yards, this variation would amount to 91 yards, and even half this would occasion a big loss. Where this variation exists, it can usually be remedied by putting on one or more coats of paint. If this is not the trouble, it may be due to friction or lack of oil in the measuring roller, or some of the connecting mechanism. It is also occasionally caused by end play of the rollers, or by the rollers not running true.

Excessive Breaking of Ends.—This is often caused by bad spooling. Some time ago, the writer had occasion to investigate very carefully the operation of eight machines. He found that the spools were not marked, so that bad work could not be traced to one who made it. After a system of marking was inaugurated, the number of breakages was reduced from an average of 130 per beam to 89. A careful record was then kept, and it was found that of the total number of breaks, 20 per cent were caused by bad spooling, 11 per cent by rough spools, and 69 per cent from unknown causes. Of the latter, probably a large number were caused by ends being lapped at the spooler, and also by excessive speed. While the machine builder recommended a maximum speed of 218, and a minimum of 163, these machines were running at 225. On one of them the speed was reduced to 172, and a careful comparison was made. The average number of breaks on the other machine was 89, and on this machine 68, a decrease of 23 per cent. While the speed was reduced nearly 24 per cent, the time required to run a beam was increased only 9 per cent. While the number of breaks is a fair indication of the quality of work done, the benefit to the weaving is certainly in an increased proportion, on account of less elasticity being taken from the yarn. These same beams taken to the slasher showed 27 per cent less breaks than the average, a per cent slightly in excess of the gain on the warper.

There was not sufficient time to follow the test on the looms, but as up repairing warps, a saving of 27 per cent would mean much greater production. These experiments certainly show that fast speed is not only very injurious to the yarn but also to a great extent defeats the end for which it was intended, viz., greater production.

The Draper warp is driven by cones, so that the machine runs slower as the spools become empty. Sometimes in their zeal to finish the beam quickly, the operatives will keep the machine on high speed throughout the entire set. This emphasizes the fact that the belt-shifting device should be carefully watched.

Selva Piled Up.—There is no occasion for this, except when the selva threads are two-ply, when the operative will sometimes space them the same as for single yarn. If they are spaced one thread in two dents and watched carefully the beam will be the same diameter all the way across, which is absolutely necessary for good work.

Production.—As much time is lost while creeling, and also more or less while piecing up ends, only about two-thirds of the theoretical production should be counted. Most warpers have an 18-inch cylinder, but some have a 12-inch. In the following table, the production is based on two-thirds of the theoretical production, and is given for each 100 spools in the creel.

they were Northrop looms, and therefore most of the weaver's time taken

Production Table, Beam Warper Per 100 Spools

No. of Yarn	Rev. of Cyl. 30 12 in.	Rev. of Cyl. 30 18 in.	Rev. of Cyl. 30 12 in.	Rev. of Cyl. 30 18 in.	Rev. of Cyl. 30 12 in.	Rev. of Cyl. 30 18 in.	Rev. of Cyl. 30 12 in.	Rev. of Cyl. 30 18 in.
8	98	297	218	327	247	380	264	—
10	161	241	176	264	193	289	215	—
12	130	195	143	214	156	234	173	—
14	115	172	126	189	138	207	153	—
16	101	151	110	165	121	181	135	—
18	96	135	98	147	108	162	120	—
20	80	120	88	132	96	144	106	—
22	73	109	80	120	88	132	97	—
24	66	99	72	108	79	118	89	—
26	62	93	68	102	74	111	83	—
28	57	85	62	93	68	102	76	—
30	53	79	59	88	63	94	71	—
32	50	75	55	82	60	90	66	—
34	47	70	52	78	56	84	62	—
36	44	66	48	72	53	79	58	—
38	40	60	44	66	48	72	53	—
42	38	57	42	63	46	69	51	—
44	36	54	39	58	43	64	48	—
46	35	52	38	57	42	63	47	—
48	34	51	37	55	41	61	45	—
50	32	48	35	52	38	57	42	—

NOTE—33 per cent of the time is allowed for stops.

GENERAL INFORMATION

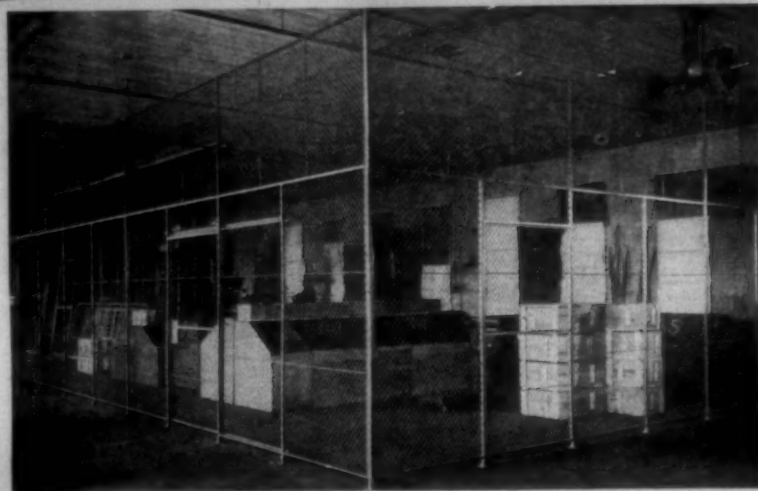
A warper with a creel for 500 spools occupies a space of about 9x16 feet. If there are only one or two machines, 15 or 20 beams will be required. The machine with one empty beam weighs about 6 pounds per spool, or 3,000 pounds for a 500-spool machine. The horse-power required is about one-quarter. The operative, if others do the creeling, can attend to from two to six machines. If the spooler hands do the creeling, which is often the case in small mills, one warper is usually required for each spooler of a hundred spindles.

THE DENN WARPER

Where the warp is not used in the same mill where it is spun, or where it is to be bleached or dyed, the yarn is not warped on a beam warper, but on a chain warper, the most usual form of which is the Denn warper, so-called from the inventor. A distinctive feature it has from other machines is the electric stop motion and an improved linking device. Where a warp is required with only a few ends, or for special purposes, a ball warper is used, which is practically the same as a beam warper, except it has a leasing device and winds on wooden or paper cylinders instead of beams. A Denn warper may also have an attachment, or several of them, for balling warps.

Calculations.—Warps are sold by the pound, but the weight is determined by calculation and not by weighing. It is therefore desirable that the actual weight and the theoretical weight correspond within reasonable limits. If the warp weighs more than it should, the mill loses that much cotton. On the other hand, if it is too light the purchaser is paying for more than he receives. About three per cent either way is not considered excessive, but the mill always tries to make it on the light side. Sometimes a mill finds its yarn too heavy or too light, and in order to make the warp weigh correctly, the attendant makes it a few yards longer or shorter than the required length. This is an exceedingly bad practice. One warp may be dyed red, and a part of it be put in with a blue stripe from some other warp. If they are not of equal length, there is considerable waste

(Continued on Page 24)



PAGE Partitions are Easy to Install

Page Panel Partitions are positive protection for valuable tools, supplies and equipment. Strong, light, sanitary, they do not interfere with light or air. The panels are uniform and interchangeable—your own men can

install, move or relocate them with ease. They come to you complete—painted, ready to erect, in standard sizes 4'x8', 2'x8', and 1'x8'. We carry complete stocks of all Page Products, and can give you prompt service.

12-ft. Partition made by placing horizontal panels above upright panels. Holes for bolting standardized to fit with panels placed in either partition.



GENERAL EQUIPMENT COMPANY

Realty Bldg.

Charlotte, N. C.

Mossberg Pressed Steel Corporation



Geared and Friction Let.
Off Loom Beam Head
Patented June 1, 1920

All Steel

LOOM BEAM HEADS
SECTION BEAM HEADS
ADJUSTABLE BEAM HEADS
(SPLIT AND SOLID)
NARROW FABRIC BEAMS
BEAMS FOR ELASTIC AND
NON ELASTIC WEB
BEAMS FOR SILK RIBBON
"NEW PROCESS" DROP WIRE
JACK SPOOLS

Attleboro, Mass.

"GREENSBORO" REEDS



Finest Quality

Greensboro Loom Reed Co.
Greensboro, N. C.

FERGUSON GEAR SERVICE

**We Manufacture Gears For All
Industrial Purposes**

All gears cut on automatic gear generating machines.

WE MAKE

Bevel Gears

3 pitch 15 inches or smaller.

Spur Gears

3 pitch 35 inches or smaller.

Worm Gears

3 pitch 18 inches or smaller.

Helical or Spiral Gears

3 pitch 18 inches or smaller.

Worms of all kinds.

We specialize on heat treated steel, motor pinions, Gears for Pickers, Cards, Lappers, Combers, Drawing, Roving and Spinning Frames, Spoolers, Winders and all textile machinery.

Gears Made From

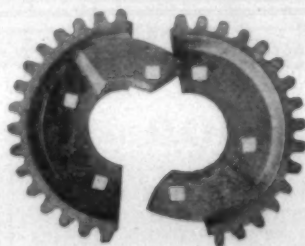
Steel, Iron, Bronze, Rawhide or Fabroid materials.

Send drawing or sample gear.

Prices on application.

FERGUSON GEAR COMPANY
Gastonia, N. C.

West Airline Ave. Phone 1070



THIS 2-PIECE GEAR CAN BE APPLIED IN THIRTY MINUTES

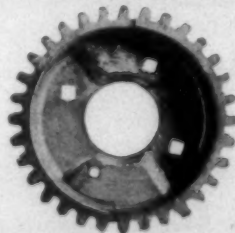
to any loom to replace a broken crank shaft gear. Saves material and time and also increases production.

Not a temporary makeshift but a permanent satisfactory repair part.

Write for sample.

Dan Gear Co.

Caroleen, N. C.



Practical Discussions By Practical Men

Changing Twist Without Changing Twist Gear.

Editor:

I have heard that the twist in yarns can be increased or decreased without changing the twist gear. How can it be done, and how many ways are there of doing it?
"Young Overseer."

Answer to Manager.

Editor:

In the January 15th issue of the Bulletin you have an article headed "Warpers Causing Bad Work." In this article the writer states that he increased the speed of his warpers in order to increase his production. But this caused his warpers to run badly, thus causing a decrease in production.

It seems to me that the logical thing for him to do is to cut the speed back down to where he can get a maximum production.

C. B.—'23.

Answer to Fixer.

Editor:

In answer to the young man, "Fixer," who wants to get ahead, will advise him to tell his foreman and superintendent that he wants to make a competent mill man and ask for any chance for promotion that comes up. Then show that by giving good, honest service without grumbling. He must remember "heads win, tails lose." Think of this when you have the desire to take a seat and rest.

Overseer.

Answer to Manager.

Editor:

Manager is having trouble with his warpers. I would advise him as follows:

Reduce the speed of the warpers until you get results. Overspeed on any machine is detrimental to the quality of the yarn. It is best to reduce the speed and add another warper, if necessary. When a thread breaks, the beam should stop by the time the broken end arrives at the beam. When the machines run too fast they will not do this, and the excessive breakage will be several rounds short on the beam, causing laps and loose ends.

Overseer.

Answer to South.

Editor:

In answer to the question in the last issue by "South," I want to say to him:

How do you know your work is not appreciated? If you are running your job and getting results, it is best to stay with it. You cannot work for all mills. You may run a job with one mill and fail with another. The biggest thing is to keep your work running right, and never

let the spinner have a bad day's spinning. If you have weaving, see that you run on the numbers. You can do this if you know cotton and have your rolls set to it, and you will not have to change gears. Sometimes it is best to change, but it certainly pays a man to know where he is going and the conditions under which he must work.

Talk to your superintendent and tell him what you want. Let him know you will give the best you have in you, and if you haven't enough to supply the demand, he will tell you. He wants the job run. If your work does not run right at any place in the mill, if you will right this paper and state where the trouble is and state what the work is, giving length and kind of cotton you use, I will be glad to give you any information you may need.

Overseer.

Answer to "Manager."

Editor:

In reply to "Manager's" question relative to trouble with warpers:

Your trouble is that your warpers are going too fast. They were going too fast before you speeded them up. You can't speed up warpers beyond a certain speed and have the work run good. And now that you have increased the speed again you are carrying on a losing game. Take my advice and slow down your warpers slower than what they were running when you speeded them up. You will be surprised to see how well they will run. You will probably find that your production will more than keep up your spinning. Let me hear from you on this, as I'd like to know how you will come out.

I knew a mill man who was in the same scrape. He consulted a brother superintendent who told him to reduce his warper speed. The reply was, How can I reduce speed—I can't keep up now. But his good friend offered to warp the troubled man's yarn on slowly operated warpers in another mill and guaranteed him more work produced at the slower speed. So the troubled man took his own yarn over to his friend's mill and watched the yarn run. It ran O. K. and filled the section beam in one-half the time that it could be filled on the higher speed warpers. The troubled superintendent went back to his mill and ordered the speed taken off his warpers and his big troubles vanished directly.

"Mill Man."

Answer to "South."

Editor:

In answer to "South's" question in last week's issue, I would say:

You say you are doing your best. That is just where your mistake is being made. Many a man has fallen down by doing his best. What you want to do is not only to do your best, but also do the other fel-

low's best. Remember that there are many others who are trying to do their best. You must find out what their best is and also do their best as well as your best. Also find out your superintendent's best way—study his wants and work hard to get his wants put through. Get as close to him as possible. Beat the past record all you can. Drive for production. Keep down singles, doubles and bad work. Reduce repair costs and use of supplies. Make your work "run good." Keep as close to your job as possible. After this you need not worry about being appreciated, because people around will soon hear of your being a big man on a little job and you will receive a call to come up higher. Keep everlastingly at it. Work and don't talk much about yourself. Oftentimes silence speaks louder than words. Results are what is appreciated more than good looks.
Super.

Answer to Cloth.

Editor:

In answer to question by "Cloth," will say first that you failed to give the dimension of your sample but, however, it is an easy matter to learn to analyze a plain fabric.

Let me give an example:

	Wide	Sley	Picks	Yds.
Fabric	36"	64	60	Per lb.
				4.75

To find the total number of ends in this warp. Rule: Multiply the sley by the width, and to the result thus obtained add a certain number of ends for selvages. $36 \times 64 = 2304$. $2304 + 24 = 2328$ ends.

To find the percentage of warp contraction during weaving. Rule: Multiply the number of picks per inch by 3 and divide by the counts of the filling. The result will be the percentage to allow for contraction. Thus: $60 \times 3 = 180$. $180 \div 28 = 6\frac{1}{2}$, which is the percentage to allow for contraction.

To find the average number of yarn in a cloth of ordinary contraction. Rule: Add pick and sley together. Multiply this result by the width and the result thus obtained by the yards per pound and divide this result by 750. The answer will be the average number of yarn. Thus: $64 + 60 = 124$. $124 \times 36 = 4464$. $4464 \times 4.75 = 21204$. $21204 \div 750 = 28.27$, of 28s average.

To find the dents per inch for this cloth. Rule: Subtract 1 from the sley of the cloth. Divide the result by the number of ends per dent and multiply the result thus obtained by .95%. Thus: $64 - 63 = 1$. $1 \div 2 = .5$. $.5 \times .95 = .475$, or 30 reed.

Figuring analysis from cloth samples: You must find the average counts and know the width of the cloth. Find the sley and pick and number of yards per pound.

The yards per pound can be found by weighing a small sample and applying the following rule:

Multiply 7,000 by the number of square inches weighed and divide the result thus obtained by the product of the weight in grains of the piece weighed, the width of the cloth in inches and 36 (the number of inches in one yard).

For instance, a piece of cloth 3 inches square is found to weigh 9 grains. What are the yards per pound if the cloth is 28 inches wide?

$$\frac{7,000 \times 63,000}{9 \times 28 \times 36} = 6.94 \text{ yds. per lb.}$$

9

252

36

1512

756

9072

$63,000 \div 9,072 = 6.94$, or, say, 7 yards per pound.

The average counts of the warp and filling yarn in a fabric can be found by applying the following rule: Add the pick and sley together and multiply the sum by 7,000 grains per pound and by the number of square inches weighed, and divide this result by the product of the yards per hank (840), the inches per yard (36) and the weight of sample weighed.

A piece of cloth 3 inches square is found to weigh 9 grains and contain 64 ends to the inch and 64 picks per inch.

What is the average number of warps and filling yarn in this fabric? Thus: A piece of cloth 3 inches square contains 9 square inches, so $64 + 64 = 128$. $128 \times 7,000 = 896,000$. $896,000 \times 9 = 8,064,000$.

$840 \times 36 = 30,240$. $30,240 \times 9 = 272,160$. $8,064,000 \div 272,160 = 29.63$ average counts

Hoping that these rules will be of interest to you, and if you will weigh your sample and get the number of grains, as there are 7,000 grains in one pound. Have your sample in one or more square inches and always when necessary divide by the number of ends per dent. Let it be 2 harness, 3 harness or 4 harness, or whatever it might be, and it will give you correct answer.

Let me hear from you through the Textile Bulletin and where you are located. Maybe you can help me. I am an I. C. S. student and have just completed a course in plain weaving and have had about four years' experience on second hand job in weave room on print cloth, sheetings, drills, ducks, osnaburgs, etc.

C. B.

Answer to "Fixer."

Editor:

From his question in last week's I. C. S. Bulletin, "Fixer" would advise him as follows:

Young man, you say that you are ambitious but that you can't see any "chance to get ahead right away." Now you are mistaken. There are a whole lot of good chances all around you right now. You have a splendid chance where you are right now to show what you can do. Good fixers are in big demand. Show your boss how well you can fix looms. Show him how well you can

keep down repair bills and the consumption of supplies on your section. Take a great deal of interest in your weavers. Help them all you can to keep down the seconds and to get off a big production. Don't be just a common, plain fixer. Be bigger than your job by proving your value and worth on your section. Your boss will be quick to notice this, and before you realize it, you will be a second hand.

You also need to take the Textile Bulletin and read it through every week. It is full of good things that you need to know. Also watch the ads in this paper. Soon you will see where an expert fixer will be needed, or a second hand is wanted. Write and tell them you are the man they need. Your overseer will be glad to recommend you and you will probably get the job. The trouble with you is that you probably don't read the textile papers. Go to it! Now is your chance!

Overseer.

Answer to Weaver.

Editor:

Replying to Weaver, I would give the following advice:

Mr. Weaver, you want to look well before you leap. Would advise you to hang on to your good job. You now have a good job and a sure income. But if you mean business and feel prepared to undertake the stiffest, hardest job you ever had, then I say break loose and make the dive. If you strike bottom don't blame your adviser. The first thing to do is to count the cost as follows:

You will need at the least 12 fancy looms installed in a building and buy your power. See what this cost is to start:

12 looms @ \$1,000.00	\$12,000.00
Building rental (1 year)	1,000.00
12 warps on the looms	
12 warps on the floor	
12 warps on the way to your mill	18,000.00
Pay roll (three months)	1,300.00
Supplies	1,000.00
Power, light, heat, insurance,	
interest and taxes	1,000.00
All other charges	1,000.00
Total	\$47,000.00

You see it will cost you all of \$50,000 capital to finance your "little plant" until you have an income which is not a "dead sure thing" either. During all of this time you will have no weekly pay envelope of your own and you've got to live and at the same time you must be boss weaver, superintendent, bookkeeper, shipper, manager, will owner and "trouble man" all in one. Now if you have \$50,000 to risk, and work night and day, also stand sleepless nights and brain-racking problems, go to it! You will be a busier and a wiser man soon after. But you better have a business meeting with your wife as chairman first and let her count the pros and cons and decide the merits of the case. The chances are that you will keep your good job, and think more of the good wife who will probably have saved your life and fortune. You are now getting \$50 a week, no doubt, and which is 6 per cent interest on \$50,000, and you are now carrying no risks and can buy your wife a new spring hat. Which is the best job? Answer!

"Business."

The River That Failed

Some years ago a textile concern built a new mill on the banks of a small stream. It was an excellent location, so far as the owners could see—plenty of water, good transportation facilities, close to raw materials and close to their markets. It was, in fact, considered such an excellent location, that other mills followed their example, and soon there were a dozen plants near by.

The textile community which sprang up around these plants grew rapidly as the demand for labor increased. Needs of the community made heavy demands on the only available source of water supply—the river.

When that small stream had gradually dwindled to such size that it could hardly be called a river, the concerns which had originally selected it as a mill site, knew they had made a mistake. This location, for so many plants, had been selected without foresight.

"Building with Foresight" is an engineering principle which Lockwood-Greene engineers apply to the selection of a site as well as to the design of the mill. Years of experience in practically every phase of textile engineering and management, give Lockwood, Greene & Co. a tremendous advantage in helping clients to avoid costly mistakes.

Lockwood-Greene service is complete. It begins and ends wherever necessary, from the preliminary study of the project to the finished plant.

We invite consultation. Send for a copy of "Building with Foresight," a booklet illustrating Lockwood-Greene work.



LOCKWOOD, GREENE & CO. ENGINEERS

EXECUTIVE OFFICES, 24 Federal Street, BOSTON

BOSTON ATLANTA CHICAGO NEW YORK
DETROIT CLEVELAND CHARLOTTE SPARTANBURG

Lockwood, Greene & Co. of Canada, Limited, Montreal

Various Views of Child Labor Amendment Advocates

(Continued from Page 14)

Rural Child Labor Strikes At Economic Prosperity

"Although approximately three-fourths of our working children are employed in agriculture, this is one of the most difficult of all occupations to regulate. The condition of our rural communities not only affects our social and civic institutions; it strikes at the very foundation of economic prosperity."—Owen Lovejoy at Conference on Child Labor Standards.

To Cut Root of Rural Child Labor

I do not think any English authority can possibly realize the eagerness with which we have watched the progress of the Fisher Bill through Parliament, because we saw at once that somebody in England had had the courage to do a thing which nobody in America had been bold enough to do, which was to try to cut, by an indirect attack, the root of rural child labor. We would like to get a similar scheme in this country.—Miss Julia Lathrop during Conference on Child Labor Standards.

Child Labor On Farm Is Serious

Mrs. Jean MacAlpine Heer stated in rebuttal that the problem of child labor on farms was serious, and admitted that the question of the regulation of it was being left open by the framers of the bill. The idea is to attempt the regulation of work in factories, and similar places first, and to leave Congress Federal authority in the farm situation in case welfare agencies failed in improving conditions. She said the day of the hand plows and tools in agriculture are passing, and the farm is becoming

like a factory without a roof. She referred also to children in beet and cotton fields.—Newark (N. J.) News report of debate at Newark on Jan. 7, 1924.

Oppose Exemption of Farm Children

"The argument that farmers' children should be exempted from the amendment is met with ringing words by members of the National Child Labor Committee, who point out that it would be most unfortunate if such an amendment should be written into the bill. If we are to protect the nation's children there is no possible excuse for depriving a large group of this protection."—Prof. Ralph P. Holben before National Child Labor Committee Convention.

The following are statements which show the ideas and intentions of those who are behind the Child Labor Amendment:

A Fight for Other Social Legislation

"This is a fight, not only for the children, but for every other move for future social legislation. Let every worker see to it that the fight is won."—Statement by an advocate of the Child Labor Amendment.

Enforced Laws Will Avail Little

Our enforced laws, however good, however effective in keeping children out of industry and in school, will avail very little unless we provide a better substitute than work, and a better school system and curriculum than the one in vogue.—Owen Lovejoy before Conference on Child Labor Standards.

Minimum Wage Laws to Follow

As they relate to minors, these minimum wage laws, these adventures into the no-man's land of wage-rate fixing, are the latest comers in the

group of regulations designed to protect children from the wastes of the industrial process. The child labor laws which preceded them aimed fundamentally to remove young children from industry.—Jessica P. Peixotto before Conference on Child Labor Standards.

Congress Will Pass Any Law They Wish

"Congress will pass any law if we wish it. Education of the child must be protected by the great law of the land."—Associated Press report of address of Miss Julia Lathrop before National Women's Christian Temperance Union in Chicago.

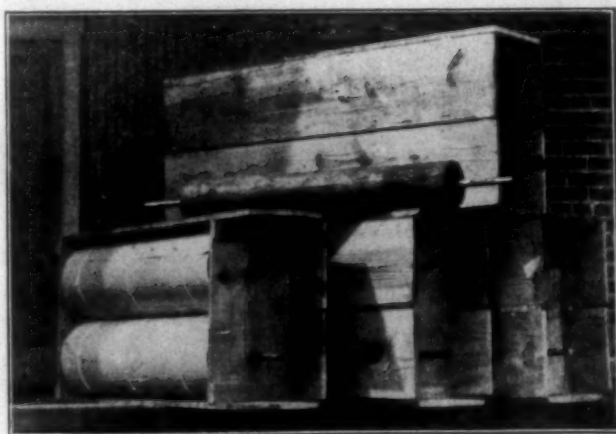
Meaningless Without Support for Children

Compel the State and Federal Legislatures to pass a law providing for full government maintenance of all school children of workers and poor farmers, without which, the Workers Party declares, a child labor law is useless.

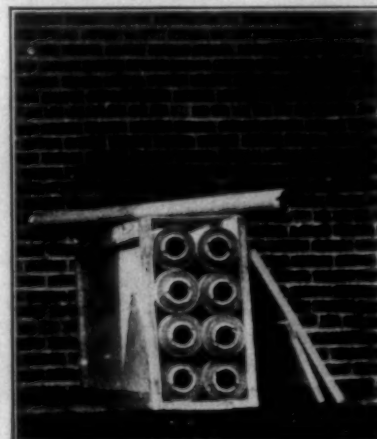
The Child Labor Amendment is meaningless without government maintenance of the school children of workers and poor farmers.—The Daily Worker, a Communist Journal.

As Premature As Jesus

You are the first of my personal friends to be put behind the bars of a penitentiary . . . you have openly defied the law of the jungles and brazenly conducted a vendetta of universal brotherhood. You came to earth too soon. You are as premature as Lincoln or Jesus . . . Goodnight, comrade, and good morning."—Extract from love letter of Owen Lovejoy to Eugene Debs when Debs was sent to a Federal prison for disloyalty during the war.



THE CLUMSY SHIPMENT
HEAVY BEAMS



THE HANDY SHIPMENT
DUPLAN SHELLS

—both contain the same quantity of silk

Compare the two shipments pictured above.

A simple metal-tipped paper shell, easily applied over any 2 1/4" wooden core at the loom, takes place of heavy wooden beam in shipment. Saves 30 to 60% of transportation charges—60 to 80% of packing

charges. No loom beams in transit. No delay.

Our facilities and experience are at your service for winding, warping, copping, coning, and throwing of real silk or artificial silk.

HAZLETON, PA.

COMMISSION WORK DEPARTMENT

135 MADISON AVENUE, NEW YORK CITY

DUPLAN

SILK CORPORATION

Cotton Consumption in December

Washington, Jan. 16.—Cotton consumed during December amounted to 532,047 bales of linters, compared with 492,233, of lint and 50,960 of linters in November and 463,789 of lint and 41,199 of linters in December a year ago, the Census Bureau announced today.

Stocks of cotton on hand December 31 were held as follows:

"In consuming establishments 1,319,265 bales of lint and 118,924 of linters, compared with 1,046,612 of lint and 95,781 of linters on November 30 last year and 1,627,628 of lint and 113,237 of linters on December 31 a year ago. In public storage and at compresses 4,623,863 bales of lint and 53,017 of linters, compared with 4,914,219 of lint and 51,804 of linters on November 30, last year, 3,512,577 of lint and 66,040 of linters on December 31 a year ago. Imports during December totalled 48,662 bales, compared with 17,649 in November last year and 35,173 in December a year ago. Exports during December totalled 1,075,923 bales, including 22,475 bales of linters, compared with 1,306,550 including 17,311 of linters in November last year and 845,731, including 11,810 of linters in December a year ago. Cotton spindles active during December numbered 32,661,949 compared with 31,789,876 in November last year and 34,049,852 in December a year ago. Statistics for cotton growing States include:

Cotton consumed during December was 355,662 bales, compared with 347,548 in November and 308,466 in December a year ago.

Cotton on hand December 31, in consuming establishments, totalled 867,960 bales, compared with 699,862 on November 30, and 867,960 on December 31 a year ago.

Cotton on hand December 31, in public storage and at compresses totalled 4,351,023 bales, compared with 4,646,786 on November 30 and 4,351,023 on December 31 a year ago.

Cotton spindles active during December numbered 16,785,949, compared with 16,682,076 in November and 16,258,108 in December a year ago.

Imports of British Cotton Goods

During the 12 months of 1924, English mills shipped into this country 162,724,100 square yards of cotton goods, according to the final figures for last year issued by the British Board of Trade. This total compares with a total of 174,878,000 square yards imported here during 1923, the latter figures being the largest of any year recorded since 1908. Apparently, the totals for both 1924 and 1923 are the highest on record in recent times.

English cotton exports to the United States in December, 1924, were 16,548,000 square yards. This is slightly higher than the 16,221,500 square yards listed for November, 1924, and the third largest of any month last year. The other highs were 16,605,000 in February and 17,562,000 in January.

England's total of cotton goods exports to all countries during 1924 was 4,444,705,400 square yards, which is higher than the 1923 total by about 300,000 square yards. During 1923 the total came to 4,141,304,000 square yards.

Last month's exports from Great Britain showed a sharp increase in shipments to Switzerland, the total for that country being listed at 118,455,300 square yards. The previous month the total had been 13,654,000 square yards. There was also an increase in the exports to India, with 161,743,200 square yards listed. Shipments to China came to 23,131,400 square yards, showing an increase of about 8,000,000 square yards over November.

The exports to Egypt were 21,664,800 square yards, compared with 16,758,000 square yards in November; Dutch East Indies, 11,721,400 square yards, compared with 9,445,000 square yards in November; Australia, 13,903,700 square yards, against 11,558,000 square yards in November.

Argentina was the only country in England's list of chief customers showing a decrease for December, with a total of 13,944,000 square yards, against 15,081,000 during November.

The total world exports of England for December were 409,567,400 square yards, compared with 329,455,300 square yards in November.

	Square Yards. (000 omitted.)	Dec.	Nov.	—1924— Oct.
India	161,743	102,542	127,017	
China	23,131	15,365	14,968	
Egypt	21,664	16,758	17,402	
Switzerland	118,455	13,654	11,694	
Dutch E. Indies	11,721	9,445	10,973	
Australia	13,903	11,544	10,339	
Argentina	13,944	15,081	14,148	
United States	16,548	16,221	13,012	

Exports to United States.

	Sq. Yards. (1924)	1923
December	16,548,000	16,221,500
November	16,221,500	13,012,000
October	13,012,000	10,333,200
September	10,333,200	9,259,400
August	9,259,400	12,323,800
July	12,323,800	10,774,200
June	10,774,200	11,794,000
May	11,794,000	12,265,000
April	12,265,000	15,386,000
March	15,386,000	16,605,000
February	16,605,000	17,562,000
January	17,562,000	
January	12,305,000	11,096,000
February	14,760,000	10,183,000
March	14,580,000	10,535,000
April	15,467,000	7,337,000
May	15,437,000	5,277,000
June	13,418,000	5,495,000
July	16,373,000	6,978,000
August	12,968,000	7,474,000
September	12,178,000	8,508,000
October	15,934,000	7,922,000
November	15,800,000	7,026,000
December	14,652,500	8,233,000

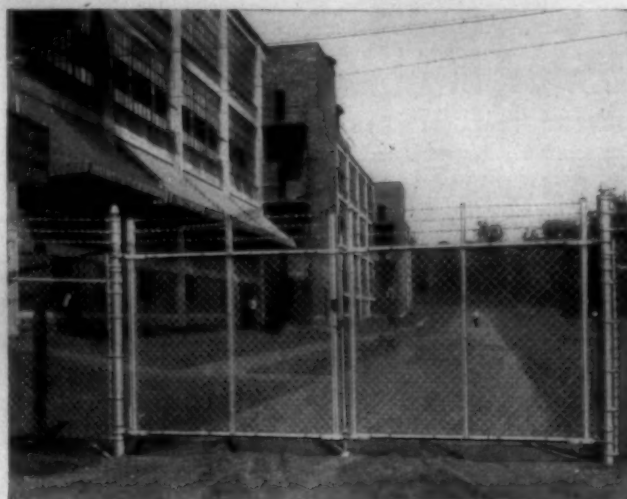
United States Exports of Raw Cotton Increase.

Shipments of raw cotton, including linters, as usual, constituted the bulk of the textile exports from the United States and amounted in value to 82.09 per cent of the total, during the 11 months ended November 20, 1924. Exports of raw cotton and linters during this period totalled 5,719,000 bales with a value of \$815,095,000, an increase of 29 per cent in quantity and 24 per cent in value over the same months of 1923. Europe purchased 87.5 per cent of the raw cotton exported from the United States during the 1924 period. Of this amount the United Kingdom took a little over, and Germany slightly under, one-fifth, shipments to each country showing an increase over the 1923 figures.

FIRM—BECAUSE THEY ARE ANCHORED

Anchor Post Fences

PERMANENT—BECAUSE THEY ARE GALVANIZED



STRONG FACTORY GATES

Electrically Welded at every corner, rigid and strong throughout their length, they cannot sag. Galvanized throughout. As impregnable and unclimb-

able as Anchor Post Chain Link Fence.

Telephone or write our nearest office or sales agent for complete information.

Anchor Post Iron Works: 52 Church St., New York, N. Y.
CHARLOTTE, N. C.: R. M. Lane, P. O. Box 1375; GREENVILLE, S. C.:
H. H. Orr, 315 Palmetto Bldg.; SAVANNAH, GA.: C. M. MacLean Co., 20
East Bay St.; ATLANTA, GA.: Beaulieu & Applewhite, Citizens Southern
National Bank Bldg.; BIRMINGHAM, ALA.: C. S. Caldwell, 2011 Third Ave.

Sales Agents in Other Cities

Put Your Problems
up to the Original-
tors, Pioneers and
Leaders in the Field

Write for
Illustrated
Literature

TIME sternly tests both men and the things men make—Through sixty years' practical demonstration of their worth, Klauder-Weldon Machines have won unqualified preference in the foremost textile plants of the United States and Europe.

Dyeing Bleaching Scouring Machines
for Skeins Raw Stock Garments

KLAUDER-WELDON MACHINE CO.

Bethayres, Pa.

B V C

TRADE MARK

WARP TYING MACHINES HAND KNOTTERS
WARP DRAWING MACHINES
AUTOMATIC SPOOLERS HIGH SPEED WARPERS
BARBER-COLMAN COMPANY

BOSTON, MASS. GREENVILLE, S. C.

MAIN OFFICE AND FACTORY:
ROCKFORD, ILL. U. S. A.

SOUTHERN DISTRIBUTING COMPANY

50 Market Street, Charleston, S. C.
Griffin, Ga. Greenville, S. C. Charlotte, N. C.
Manufacturers and Distributors

—of—
Stauss Rectified Tallow, Oil and Gums for all warp sizing and finishing purposes

SOUTHERN TEXTILE BULLETIN

Member of Audit Bureau of Circulations
Member of Associated Business Papers, Inc.

Published Every Thursday By
CLARK PUBLISHING COMPANY
Offices: 39-41 S. Church St., Charlotte, N. C.

THURSDAY, JANUARY 22, 1925

DAVID CLARK
D. H. HILL, JR.
JUNIUS M. SMITH

Managing Editor
Associate Editor
Business Manager

SUBSCRIPTION

One year, payable in advance \$2.00
Other Countries in Postal Union 4.00
Single Copies .10

Contributions on subjects pertaining to cotton, its manufacture and distribution, are requested. Contributed articles do not necessarily reflect the opinion of the publishers. Items pertaining to new mills, extensions, etc., are solicited.

ADVERTISING

Advertising rates furnished upon application.
Address all communications and make all drafts, checks and money orders payable to Clark Publishing Company, Charlotte, N. C.

Future Textile Development

WE understand that the Amoskeag Manufacturing Company, of Manchester, N. H., have sent representatives to Europe to study linen manufacturing with a view of ultimately transforming at least a portion of their immense plant from cotton to linen.

The textile industry of the South should also study the future possibilities of the manufacture of fabrics from other fibres than cotton.

The leading fibres to consider are jute, linen, wool, worsted, silk and artificial silk.

We have for many years manufactured coarse jute bagging and several mills are today operating upon fabrics made of cotton warp and jute filling.

We know little of linen but we have been informed that certain sections of Kentucky are admirably adapted to flax and only need capital to furnish all of the raw material that the South can use.

For many years we have had a limited number of wool manufacturing plants scattered over the South and it is an industry that would grow rapidly if attention and capital were put into same.

The success of the Southern Worsted Company at Greenville, S. C., has demonstrated that the worsted business has a great future in the South.

For years there has been a successful silk weaving mill at High Point and many of our fine goods mills are now really more silk and artificial silk mills than cotton mills.

Our cotton mills will continue to expand because we have in the South the advantage of an efficient class of operatives and a low cost of living but we need also other forms of textile manufacturing and

should put some study upon their possibilities.

We urge upon the textile manufacturers of the South, and particularly the younger men, a close study of the possibilities of developing the manufacture of fabrics from fibres other than silk.

Talking Both Ways

JUST as a matter of interest and to show the insincerity of those who seek ratification to the Child Labor Amendment, we have collected some of their statements and are publishing them on pages 11 and 16 of this issue.

It will be seen that their statements do not agree and that in their own meetings they have admitted the intention of doing the very things which they now claim they have no desire to do.

Child Labor Amendment Position

Arizona	Ratified
	(1 House)
Arkansas	Ratified
California	Ratified
Georgia	Rejected
North Carolina	Rejected
South Carolina	Rejected
Louisiana	Rejected
Massachusetts	Rejected
	(Advisory Referendum)
States ratified	3
Ratification indicated	4
States for ratification	7
States rejected	5
Will reject (definite information)	18
States for rejection	23
Necessary to defeat amendment	43
Other rejections indicated	12

HOW ABOUT THE TWENTY-FIRST AMENDMENT?



Exchange

Invited to Inspect

IN order that Arizona and New Mexico may not ratify the Federal Child Labor Amendment under the impression, as did California, that thousands of children of four years of age are employed in Southern cotton mills, the following telegram was sent to the president of the Senate and the speaker of the Senate in both Arizona and New Mexico, the only two States that appear certain to join Arkansas and California in their ratification of the Child Labor Amendment:

January 16, 1925.

President of the Senate,
New Mexico Legislature,
Santa Fe, New Mexico.

Gross misrepresentations of Child Labor conditions in Southern mills is causing you to seriously consider surrendering certain power to the Federal Government. We would welcome an investigation committee of your Legislature and give them free access to any and all mills. They will find conditions entirely different from those represented to them. We employ no children under fourteen years of age. Why legislate to correct an evil unless you know that it exists?

COTTON MANUFACTURERS' ASSOCIATION OF NORTH CAROLINA.
Hunter Marshall, Jr., Secretary.

Not All Socialists.

Not all of the advocates of the Child Labor Amendment are socialists or communists. But many of the most active supporters of it are of that class. They have put out an ingenious and misleading propaganda, appealing to the sympathies of the people. Doubtless many patriotic American citizens who favor the amendment do not realize where the chief urge for its adoption comes from. They do not know that it comes from people who exalt Lenin, and Debs and Karl Marx, and who care little for our glorious history.—Roseberg (Ore.) Review.

Beat the So-Called "Child Labor Amendment."

Power once granted to the bureaucrats at Washington can never be recalled, and if granted is certain to be abused. If you believe in home rule of your own children, see that your State Legislature knows you oppose the amendment that is now before it for action. Cut out this paragraph and mail it to your State Representatives.

If you have longed for a chance to halt the power-grabbing of Washington bureaucracy, here it is. Beat their pet amendment, and beat it good.—Farm Journal, Philadelphia.

Personal News

Slay Welch is now grinding cards at the Arkray Mills, Gastonia, N. C.

G. H. Blankenship has resigned as superintendent of the Grace Mills, Rutherfordton, N. C.

C. W. Gibson has become second hand at the Spray Cotton Mills, Spray, N. C.

N. P. Bumgarner has resigned as superintendent of the Globe Yarn Mill, Mt. Holly, N. C.

W. J. Jennings has become assistant superintendent of the Catawba Spinning Company, Mt. Holly, N. C.

L. H. Beck has resigned as general superintendent of the Hart and Fountain Mills, Tarboro, N. C., and moved to Augusta, Ga.

John D. Jones, local manager of the Buffalo plant of the Union-Buffer Mills, Buffalo, S. C., will hereafter act as superintendent also.

M. C. Rafter has been promoted from night superintendent to day superintendent of the Globe Yarn Mills, Mt. Holly, N. C.

J. F. Outen has resigned as superintendent of the Nims Mill of the American Yarn and Processing Company, Mt. Holly, N. C.

N. Winwoth has been promoted to assistant superintendent of the Buffalo plant of the Union-Buffer Mills, Buffalo, S. C.

L. M. Odell, of Gastonia, N. C., has become overseer of carding at the Norwood Manufacturing Company, Norwood, N. C.

R. E. Starnes, superintendent of the Alsace and Woodlawn Mills of the American Yarn and Processing Company, has charge of the Nims Mill also.

K. S. Tanner, of Rutherfordton and Spindale, N. C., and head of the Tanner chain of mills, has been elected president of the Commercial Bank, of Rutherfordton.

A. A. Oliver has resigned as overseer of carding and spinning at the Lenoir Cotton Mills, Lenoir, N. C., to accept a similar position with the Dudley Shoals Mill, Granite Falls, N. C.

H. S. Wylie, overseer weaving at the Fort Mill Manufacturing Company, Fort Mill, S. C., is recovering from injuries recently received in an automobile accident.

W. R. Parker, superintendent of the Bibb Manufacturing Company No. 2, Macon, Ga., will hereafter have charge of the Crown Knitting plant of the same company.

Raymond E. Short, who has been with the Loray plant of the Manville-Jenckes Company, Gastonia, N. C., for the past seven years, has become overseer weaving and twisting at the new Worth Mills, Fort Worth, Texas.

B. A. Schmidt has resigned as superintendent of the Crown Knitting plant of the Bibb Manufacturing Company, Macon, Ga., to accept a position with the Maginnis Mills, New Orleans, La.

J. V. McCombs has resigned as superintendent of the Buffalo plant of the Union-Buffer Mills, Buffalo, S. C., to become general superintendent of the Hart and Fountain Mills, Tarboro, N. C.

L. H. Hallman has resigned as overseer of carding at the Lockhart plant of the Union-Buffer Mills, Lockhart, S. C., and accepted a similar position at the Inman Mills, Inman, S. C.

C. W. Kale, superintendent of the Sterling and Stowe Spinning Mills, Belmont, N. C., has been appointed mayor of that town. He succeeds the late C. E. Tucker, who was superintendent of the National Yarn Mill and Crescent Spinning Mill, and had been mayor of Belmont for the past two years.

W. D. McNeil Dead

W. D. McNeil, of Fayetteville, N. C., died at his home there on last Friday night after an illness of several months. He was 64 years of age. Mr. McNeil had at various times been connected with a number of Southern cotton mills and had achieved considerable note as a mill engineer. He was construction engineer for the building of the Mecklenburg Mills, Charlotte; the Glenn-Lowry Mills, Whitmire, S. C., and the Victory Mills, Fayetteville. He promoted and built the Ozark Mills, Ozark, Ala.; the Raeford Mill and Power Company, Raeford, N. C., and the Kingsville Cotton Mills, Kingsville, Tex. Some years ago he purchased and operated for a time, the Millen Mills, Millen, Ga., which he later sold.

Joseph Sykes Bros. Buy Site in Charlotte.

Joseph Sykes Bros., card clothing manufacturers of England, have purchased a site for a factory on Mint street in Charlotte.

It is understood that no definite decision about building a factory has been made but the chances are that it will be erected within the next two years.

For many years Joseph Sykes Bros. have had an office in Charlotte and at the present time Walter B. Pratt has charge of same.

Eastman Cotton Mills.

Eastman, Ga.

Guy M. Vann _____ Supt.
Reuben J. Wright _____ Carder
Stubby P. Cole _____ Spinner
Warren E. Baggett _____ Weaver
Cecil L. Hood _____ Cloth Room
Marvin D. Dyer _____ Master Mechanic

Bobbins and Spools

Particular attention given to
All Types Of Warp
Bobbins For Filling Wind
Samples of such bobbins gladly
furnished

The Dana S. Courtney Co.
Chicopee, Mass.

A. B. CARTER, Southern Agt, Gastonia, N. C.

Our Service Department

Yes, we know no loom-harness manufacturer has ever done it before, but why shouldn't your weaving difficulties with regard to loom-harness and reeds be of just as much concern to us as your machinery troubles are to the manufacturers of your textile machinery?

And so with this in mind, we have established a Service Department in connection with our Southern Plant. No problem in your weave room is too small or too large to keep us from giving you the best we can offer. No one knows it all, but what we can give is yours for the asking.

STEEL HEDDLE MFG. CO.

GREENVILLE

PHILADELPHIA

PROVIDENCE

"Duplex" Loom
Harness—complete
Frames and
Heddles fully
assembled

Harness Frames
Salvage Harness
Leno Doups
Jacquard Heddles

SOUTHERN PLANT
Greenville, S. C.

HAMPTON SMITH
Southern Manager

Drop Wires
Nickel-Plated
Copper-Plated
Plain Finish
Improved
Loom Reeds
Leno Reeds
Leno Reeds
Combs

MILL NEWS ITEMS OF INTEREST

Atmore, Ala.—Fred Beatty and associates reported planning erection of cotton mill.

Franklin, Tenn.—Thomas B. Johnson reported interested in establishment of textile mill.

Whiteville, N. C.—It is reported that L. A. Tatum, formerly president and treasurer of the Dillon Mills, Dillon, S. C., is planning to erect a cotton mill here.

Belmont, N. C.—At the meeting of the stockholders of the Linford and Perfection Mills, a semi-annual dividend of five per cent was declared. All of the officers were re-elected for another year.

Charlotte, N. C.—It is understood that the Ipswich Mills, of Lowell, Mass., have decided upon the site for their Southern plant but the information has not yet been made public.

Pittsboro, N. C.—The Pompton Lakes Weaving Company, of Pompton Lakes, N. J., reported to establish plant for manufacture of silk ribbons, etc.

Lincolnton, N. C.—The Boger and Crawford Spinning Mills are erecting ten new houses in their village, paving the streets and making a number of other improvements. The plant is running night and day.

Burlington, N. C.—The Southern Artsilk Bleach and Dye Works has been organized here by E. W. Sweet, W. L. Garrison and W. H. Garrison. It is reported that the company will establish a plant for bleaching and dyeing artificial silk hosiery.

South Boston, Va.—The Halifax Cotton Mills will erect an addition to its mill and install bleaching equipment. The plant has 8,098 spindles and 300 looms, making mercerized table damasks and napkins. Wm. A. McCanless is president and treasurer.

Carthage, N. C.—Business men of this place are taking steps to organize a company to build a cotton mill here. Names of those interested have not yet been announced. Local reports state that the proposition is definite enough to assure the building of the mill.

Anniston, Ala.—The Lanier Manufacturing Company, recently organized here to establish a plant to manufacture mop yarns, as noted, will install sufficient machinery to employ about 60 workers. J. A. Meinhardt, of Chicago, is president; B. W. Pruett, president of the Anniston National Bank, is vice-president, and C. N. Lanier, formerly of Talladega, is treasurer and general manager.

Concord, N. C.—The Kerr Bleaching and Finishing Company, the oldest bleachery in the South finishing goods for the trade, is installing a new kier to take care of increasing business.

Kings Mountain, N. C.—At the annual meeting of the stockholders of the Dilling Mills, all officers were re-elected and the affairs of the company reported in good shape. A. K. Winget was added to the board of directors to succeed Capt. Dilling, who died last summer. A. G. Myers, of Gastonia, is president of the mill.

Oklahoma City, Okla.—A special sub-committee of the Oklahoma City Chamber of Commerce industrial development committee was appointed to take charge of the project of establishing a cotton mill in the vicinity of Oklahoma City. It comprises Tom Baugh, clothier; E. E. Barbee, Andrew Kinkade and Albert Mager. The chamber has,

for several months, been negotiating with a number of well known textile engineers and manufacturers relative to establishing a local institution.

Monroe, N. C.—The Monroe Cotton Mills, formerly the Bearskin Cotton Mills, has taken on new life under the management of C. W. Johnston, of Charlotte. Last summer the plant was purchased by a number of gentlemen, including Mr. Johnston and W. H. Belk, of Charlotte, and Dr. Belk and R. A. Morrow, of Monroe. At a stockholders' meeting the president reported that the mill is in fine shape and had made some money for the first quarter.

Waco, Tex.—It is the intention of the management of C. R. Miller Manufacturing Company to sign a contract with an engineer some time within the next three weeks, for a new plant.

The new mill will have 10,000 spindles devoted to the manufac-

ture of face and bath towels, unless the stockholders should decide otherwise at the annual meeting the last of this month.

Should the program be carried out, of building the mill for the manufacture of towels, it will entail the installation of a complete bleachery sufficiently large for handling the mill's production and, also, for handling the bleaching and finishing work of other constructions for the mills in the Southwest.

The present mill of 10,000 spindles is well equipped and modern in every sense, devoted to the production of denims, chambrays, pin checks and coverts. This mill has operated full time all the year and, at present, is running both day and night shift.

Chattanooga, Tenn.—Plans have just been announced here for the consolidation of the Dixie Mercerizing and Dixie Spinning Companies through purchase of the latter by the mercerizing company. The plan as outlined for the \$3,000,000 textile merger has been approved by the directors of both companies and by a special stockholders' committee from each concern. Final action will be taken at a special stockholders' meeting of the spinning company on January 27. When the deal is consummated the spinning company will surrender its charter.

The plan for consolidation is briefly as follows: The Dixie Mercerizing Company, which is now capitalized at \$1,000,000, will increase its capitalization to \$3,000,000. To equalize the values of the selling and buying companies' stock, the mercerizing company will declare a 10 per cent stock dividend. The Dixie Spinning Company has \$1,189,000 stock issued and outstanding, which will be exchanged by J. H. McDowell, who has been named as trustee for a like amount of stock in the Dixie Mercerizing Company.

Durham, N. C.—Establishment of a novelty weaving mill in Durham is assured, if the enthusiasm of 45 representative business men, displayed at a regular smoker held Monday night in the Chamber of Commerce, can count for anything, and if it is caught by the people at large in the city, resulting in their co-operation with the new industries committee of the chamber in putting across their work of bringing to the city a number of manufacturing establishments for which Durham is suited.

The Chamber of Commerce has a proposition from an experienced manufacturer (name withheld) to put \$25,000 in the proposition if local people will subscribe \$125,000 to the proposed capital stock of \$150,000. While no canvass for local subscriptions has been made, it was announced at the chamber meeting that \$50,000 of the proposed amount already was available.

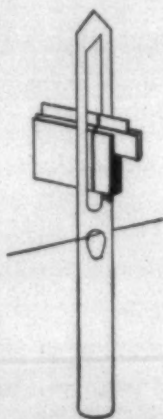
THE FARISH COMPANY

COMMISSION MERCHANTS



100 WORTH STREET

NEW YORK



K-A Electrical Warp Stop For Looms

is backed by twenty years of experience and steady growth. It is adopted by representative mills weaving cotton, silk, worsted and woolens.

R. I. Warp Stop Equipment Co.

CHARLOTTE ATLANTA PAWTUCKET

Members American Society Landscape Architects

E. S. DRAPER

11 E. Fifth St.
CHARLOTTE, N. C.

101 Marietta Bldg.
ATLANTA, GA.

LANDSCAPE ARCHITECT and ENGINEER

Town Planning and Mill Village
Developments
Parks, Real Estate Subdivisions
and Cemeteries
Resort Hotels and Country Clubs
Private Estates and Home Grounds

Complete Topographic Surveys
General Design, Planting, Grading
and Detail Plans
Supervision of Landscape and
Engineering Construction
Sewer and Water Development

Largest Landscape Organization in the South

Of the \$150,000 capital to be invested in the project, \$40,000 would be used in the purchasing of real estate and the erection of a building \$85,000 would be spent in purchasing machinery and equipment, while \$25,000 would be the operating capital. Those who have carefully investigated this undertaking are of the opinion that it will show a very satisfactory return upon the investment, it was declared. The capital is to be divided into 1,500 shares of par value of \$100 per share, which is the only class of stock to be issued.

Memorial Building To S. B. Tanner

Spindale, N. C.—M. E. Boyer, Jr., Charlotte architect, has completed the preliminary sketches for the community building at Spindale to be erected as a memorial to the late S. B. Tanner and Spencer Tanner, his son.

An old colonial brick dwelling will be the nucleus around which a handsome community house will be built. Together with the tract of land upon which it will stand the place will be presented to the town by Kenneth Tanner, of Spindale; Bobo Tanner, of Charlotte, and Mrs. R. H. Crawford, of Rutherfordton, sons and daughter of the late S. B. Tanner and brothers and sister of the late Spencer Tanner.

The total gift will represent an investment of approximately \$75,000. Bids on the work will be invited the middle of February and the building is expected to be opened next fall.

The present house, formerly the Spindale Inn, will be remodeled and repaired. At the rear will be added locker and shower rooms, a gymnasium, which will also be used as an auditorium; a kitchen, small dining room, library with shelves for 5,000 volumes, offices for the community work director and a social room. The second floor of the structure will contain an apartment for the director.

The community house will be located in the heart of Spindale and will sit back 150 feet from the main highway. A splendid old oak grove provides an excellent setting. The building will be 100 feet wide with depth of 160 feet.

Gaston Mills Hopeful

Gastonia, N. C.—The textile market continues to show signs of improvement here and increasing steadiness is noted. Meetings of Gaston county mills held so far during January indicate a return to good business, while reports of some organizations showed a slight amount of profits for last year, a

record which is considered unusually good for 1924, declared a local mill executive.

Mills have light supplies on hand now and are apparently waiting for demands from distributors of yarns to show signs of further improvement.

Thus far the expected January betterment has been largely confined to optimistic forecasts from trade leaders, but actual orderings are still small. There is good reason, however, to anticipate a gradual and important gain in domestic business and a consequent increase in domestic mill consumption of cotton which would necessitate a

broader buying movement in view of the small supplies on hand in consuming establishments.

Fundamentally the position of cotton is favorable to higher prices, but higher prices cannot be expected so long as the trade is apathetic. Meanwhile foreign interests are taking raw cotton in anticipation of expanding world demand.

Greenville Textile Club Elects New Officers

"The Boy in Industry" was the subject of an interesting talk delivered by C. C. Robinson, of New York, at a meeting of the Greenville Textile Club Saturday night.

The meeting was held at Parker High School and was the first in 1925, hence new officers were elected.

Besides Mr. Robinson, other visitors introduced at the meeting were W. B. Loomis, of Atlanta; B. A. Schnell, of Columbia, and F. C. Wilson, of Atlanta. These men also attended the employed boys' conference here Thursday.

The following officers for the coming year were named. President, Dan D. Leek, of the Poe Mill; vice-president, H. B. Jones, Union Bleachery; secretary and treasurer, T. H. Quigley; assistant secretary, H. W. Mosley, Monaghan Mill. Directors, Dick Whitmire, Mills Mill, and W. B. Williams, American

Bandits Get Mill Pay Roll

LaFayette, Ga.—Search was being made here Saturday for two masked bandits who escaped Friday night with \$1,200 pay roll of the LaFayette Cotton Mills after holding the cashier and three others at bay with revolvers.

The holdup men surprised the cashier, W. E. McGowan, as he was engaged in preparing the money for delivery to employees. Scooping up the money, they sped away in an automobile, pursued by bullets from the revolver of a night watchman.

LOOM STRAPPING

Check Straps--

Lugs,

folded and stitched, cemented—

Rounded and flat

Harness Straps--

Bumpers--

Hold-ups--

Binder Straps--

Power Straps--

Friction Discs--

We specialize and know your looms.

Ask your jobber.

The Druid Oak Belting Co., Inc.

Baltimore—Boston

R. L. DIXON & BROTHER

1501 1/2 Commerce Street

Dallas, Texas

Buying Agencies all Principal Towns
Texas and Oklahoma

INSPECTING
SEWING
BRUSHING
SHEARING
SINGEING
PACKAGING
FOLDING

Curtis & Marble Machine Co.

Textile Machinery

Cloth Room and Packaging Machinery

WORCESTER, MASS.

SOUTHERN OFFICE

1000 Woodside Bldg.

Greenville, S. C.

DOUBLING
MEASURING
WINDING
STAMPING
TRADEMARKING
CALENDER
ROLLING

THE CHOICE OF A HUMIDIFYING SYSTEM

must be one that for simplicity with great capacity and economy in maintenance produces uniformly such conditions that may be determined for the different requirements of the work. In the American Moistening Company's method of humidifying, all such requirements are GUARANTEED.

Our COMINS SECTIONAL HUMIDIFIERS

Our FAN TYPE and HIGH DUTY HUMIDIFIERS

Our VENTILATING Type of Humidifier (Taking fresh air into the room from outside)

Our ATOMIZERS or COMPRESSED AIR SYSTEM

Our COMPRESSED AIR CLEANING SYSTEM

Our SIMPLEX HUMIDIFIER—One Pipe—No Pressure Pipe

Our CONDITIONING ROOM EQUIPMENT

Our AUTOMATIC HUMIDITY CONTROL (Can be applied to systems already installed)

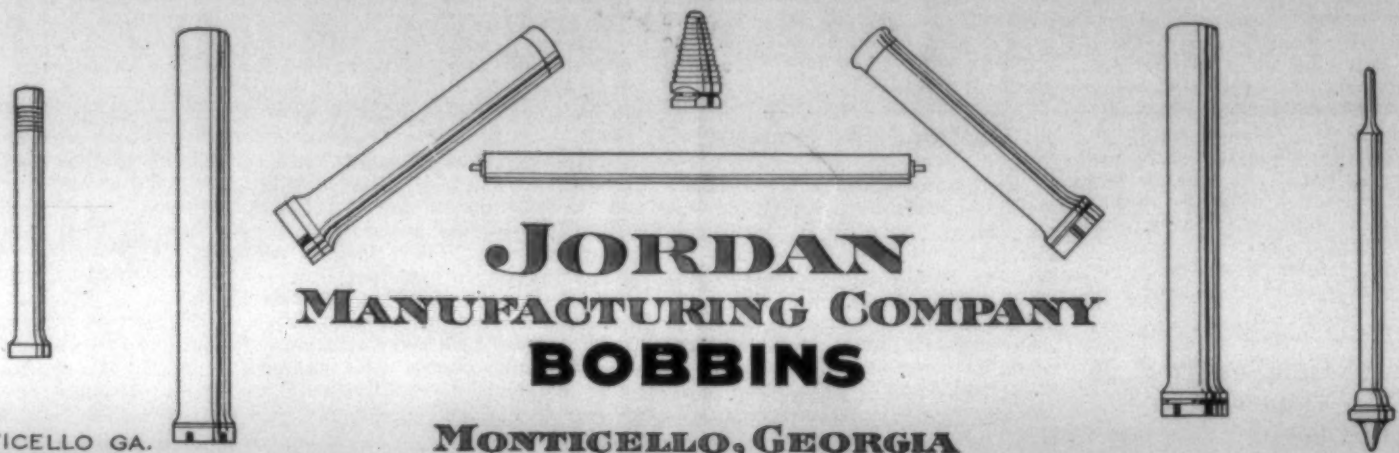
Our AUTOMATIC TEMPERATURE CONTROL

Are all STANDARDS OF MODERN TEXTILE MILL EQUIPMENTS

AMERICAN MOISTENING COMPANY

BOSTON, MASS.

SOUTHERN OFFICES, 276 Marietta St., Atlanta, Ga., No. Charlotte, N. C.



**JORDAN
MANUFACTURING COMPANY
BOBBINS**

MONTICELLO, GEORGIA

MILLS AT
MONTICELLO GA.
AND TOECANE, N.C.

Cloth Imports Larger in December

Washington, Jan. 15.—More than 17,000,000 square yards of cotton goods were imported during December, 1924, according to the classified figures listed for that month by the Department of Commerce and issued today. The exact Government total is 17,170,573 square yards, which is larger than any other month last year. The previous high for 1924, including only the fabrics specified in the department's classified list, was March, with 14,631,496 square yards.

Broadcloth imports during December were again the largest item in the list, setting a high record for the year with a total of 12,394,819 square yards. This compares with

the department's November total of 9,488,522 square yards and with an October total of 9,256,403 square yards. The December broadcloth total is thus about 3,000,000 square yards greater than either of the two previous high months for 1924.

There were 1,296,315 square yards of goods imported during December under the heading of "lawns, nainsooks, cambrics, and similar fine goods of average yarn number above 40." This is the highest total for any month during 1924, for goods listed under that classification, and compares with 800,751 square yards in November, 821,000 in October, and 1,471,000 in September—the previous highs.

Imports of sateens woven with not more than seven harnesses were 1,156,575 square yards, compared with about 768,771 square yards in

November. There were 352,335 square yards of sateens woven with eight or more harnesses. In connection with sateens, these figures include unbleached, bleached, printed, colored or fancy woven.

December imports of voiles are given at 815,282 square yards, compared with 450,210 square yards in November. The voile imports in December were larger than any month since April, when the total was more than 1,270,000 square yards.

Of crepes, there were 834,456 square yards listed in December, compared with 818,734 in November; ratines, 62,036 square yards, compared with 25,435 in November; dotted Swisses, 29,863 square yards, compared with 1,056 in November; all Jacquard woven cloths other than swivels or lappets, 86,925

square yards, compared with 32,427 in November; and gingham, two or more colors, 20 to 59 average yarn numbers, 141,887 square yards, compared with 92,621 in November.

Exports of Silk Goods From France.

Exports of silk manufactures from France increased from 6,856,400 kilos (kilo equals 2.2046 pounds) during the first 10 months of 1923 to 8,117,800 kilos during the same months of 1924. The values showed an increase of 936,207,000 francs (franc equals \$0.0538 at current exchange) and amounted to 2,764,114,000 francs in the 1924 period. England has increased its purchases by 308,403 kilos, while those to Germany are nearly eight times as large as a year ago. Switzerland, Belgium and Italy have all bought more freely.

Manufacturers of Speeders, Bobbins, Cap Spinning Bobbins, Skewers, Warp Bobbins, Filling Northrop Loom Bobbins, Twister Bobbins, Twister Spools, Warper Spools, Comber Rolls, Quills, Underclearer Rolls (plain or covered).

U S Bobbin & Shuttle Co.

57 EDDY STREET

PROVIDENCE, R. I.

SHUTTLES

We make a specialty of Shuttles for all makes of looms, both plain and automatic. Correspondence solicited.

SCOTT TESTERS

The Standard of The World For Tests of Fabrics,
Yarns, Twines, Etc.

Manufactured By
HENRY L. SCOTT & CO.
101 Blackstone St.
PROVIDENCE, R. I.

Represented in New York By
United States Testing Company, Inc.
316 Hudson St., New York City

"HIGH GRADE"

**BOBBINS
SPOOLS
SHUTTLES
SKEWERS
ROLLS, ETC.**
OF EVERY DESCRIPTION

THE DAVID BROWN COMPANY

Lawrence, Mass.

Correspondence Solicited

Catalog on Request

AUTOMATIC SHUTTLES

Try Our New Automatic Shuttles for either cotton or woolen weaving. It is meeting every requirement with entire satisfaction.

Meeting of Chemists and Colorists

THE Southern Section of the American Association of Chemists and Colorists, which was organized at Greenville, S. C., during the Southern Textile Association meeting, held its second meeting at Charlotte, N. C., on Friday, January 16th, with a dinner at the Southern Manufacturers' Club at 7 p. m.

Brown Mahon, of Greenville, S. C., who was elected chairman at the first meeting, presided, and Harry Ormand, also of Greenville, was secretary.

A short address of welcome was delivered by J. Mack Hatch, manager of the American Yarn and Processing Company, of Mt. Holly, N. C.

In the absence of A. L. Randolph, who was to read a paper on "The Development of the American Dyestuff Industry During 1924," Chas. H. Stone, of the Grasselli Dyestuff Corporation, made a very interesting review of the remarkable development of the American dyestuff industry.

Chas. P. Walker read a paper on "The Recent Development of New Dyes and Chemicals Abroad."

David Clark, editor of the Southern Textile Bulletin, made a talk on the "Child Labor Amendment."

The meeting was then turned into a discussion which centered upon several phases of the dyeing of artificial silk and its effect upon shading and puckering.

H. M. Chase, of Danville, Va., was elected chairman to succeed Brown Mahon and Malcomb Mackenzie, of Cramerton, N. C., was elected vice chairman.

David Clark was elected an honorary member of the association.

It was decided to hold the next meeting in Atlanta, Ga., at a time to be selected by the chairman.

It was almost midnight before they adjourned.

Among those present at meeting were:

Akerstrom, A. R., Salesman and Technical Rep., National Aniline & Chemical Co., Charlotte, N. C.
Akerstrom, R., National Aniline & Chemical Co., Charlotte, N. C.
Brooks, C. K., Bleacher and Finisher, Kerr Bleachery, Concord, N. C.
Bunch, F. B., Sec. and Treas., Statesville Cotton Mill, Statesville, N. C.
Chase, J. T., Asst. Mgr., National Aniline & Chemical Co., Charlotte, N. C.
Clark, David, Editor, Southern Textile Bulletin, Charlotte, N. C.
Clayton, W. F., Demonstrator Salesman, DuPont Co., Charlotte, N. C.
Craig, R. T., Mgr., Lola Gingham Mill, Stanley, N. C.
Dietz, Robert, DuPont Co., Charlotte, N. C.
Dixon, H. B. (Guest), National Chemical Dye Works, Burlington, N. C.
Green, L. E., Salesman, DuPont Co., Charlotte, N. C.
Hatch, J. M., Sec. and Asst. Treas., American Yarn and Processing Co., Mt. Holly, N. C.
Hood, H. E., National Ailine and

Chemical Co., Charlotte, N. C.
Hornbuckle, W. P., Supt., Lola Gingham Mill, Stanley, N. C.
Horne, Hugh J., Chemist, Newport Chemical Works, Greensboro, N. C.
Howard, Jesse M., DuPont Co., Concord, N. C.
Ivey, W. R., DuPont Co., Charlotte, N. C.
Johnson, M. T., Dyer, Judson Mills, Greenville, S. C.
Johnson, T. R., Laboratory, DuPont Co., Charlotte, N. C.
Klumph, E. W., Charlotte, N. C.
MacKenzie, Malcomb, Dyer, Cramerton Mills, Cramerton, N. C.
McCoy, F. H. S., Stanley, N. C.
Mahon, Brown, V.-Pres., Judson Mills, Greenville, S. C.
Misenheimer, Todd B., Sou. Rep., Sandoz Chemical Works, Charlotte, N. C.
Moore, J. E., Grasselli Dyestuff Corp., Charlotte, N. C.
Oates, T. F., Dyer, Fort Mill Mfg. Co., Fort Mill, S. C.
Ordway, Chas. B., DuPont Co., Charlotte, N. C.
Ormand, H. W., Union Bleachery, Greenville, S. C.
Ray, Ed C., Buyer, McAden Mills, McAdenville, N. C.
Sims, Sylvester, DuPont Co., Charlotte, N. C.
Smith, E. M., Dyer, Statesville, N. C.
Souther, R. H., Proximity Print Works, Greensboro, N. C.
Stone, Chas. H., Mgr., Grasselli Dyestuff Corp., Charlotte, N. C.
Stribling, R. S., Supt., N. C. Finishing Co., Salisbury, N. C.
Sweet, E. W., Grasselli Dyestuff Corp., Burlington, N. C.
Syke, W. C., Supt., Statesville, N. C.
Thompson, A. R., Jr., Sou. Rep., Rohm & Haas Co., Charlotte, N. C.
Vienir, N. T., Newport Chemical Works, Spartanburg, S. C.
Walker, Chas. P., Grasselli Dyestuff Corp., Charlotte, N. C.
Willard, W. H., Mgr., National Aniline & Chemical Co., Charlotte, N. C.
Youngblood, J. M., Jr., DuPont Co., Charlotte, N. C.

Recent Developments of New Dyes and Chemicals Abroad

(Continued from Page 8)

We now have available a product—**Katanol**, which has the advantage of being simple to apply, it leaves even raw cotton in a soft spinnable condition, needs no fixation with antimony, and cotton so prepared and dyed with basic colors, produces very superior results with regards to fastness and clearness of shade.

Katanol is offered in two forms—the O mark for dyeing and the W mark for printing.

S. GORDON BRENT CO.
Cotton Shippers
Memphis, Tenn.

SUPERINTENDENTS AND OVERSEERS.

We wish to obtain a complete list of the superintendents and overseers of every cotton mill in the South. Please fill in the enclosed blank and send it to us.

1923

Name of Mill _____

Town _____

Spinning Spindles _____ Looms _____

Superintendent _____

Carder _____

Spinner _____

Weaver _____

Cloth Room _____

Dyer _____

Master Mechanic _____

Recent changes _____

PRINTING?

RULED FORMS?

GET OUR QUOTATIONS

LETTER HEADS

on any quality of paper and envelopes to match

BILL HEADS FACTORY FORMS

STATEMENTS INVOICES

PAY ROLL ENVELOPES

Let us **LITHOGRAPH** your Letter Head

LOOSE LEAF SYSTEMS and BINDERS

Ledgers, Journals, Cashbooks and Day Books

MANY MILL FORMS CARRIED IN STOCK

WASHBURN PRINTING CO.

DAVID CLARK, President

22 WEST TRADE ST. Phone 342 CHARLOTTE, N. C.

You Receive Seventeen (17) Years of Practical Printing Experience

A mill man recently described

**WYANDOTTE
TEXTILE SODA
WYANDOTTE
CONCENTRATED
ASH
WYANDOTTE KIER
BOILING SPECIAL**

as materials that produce desirable results with the least waste effort at the lowest possible cost.

Why not make this man's experience a part of your own experience. Order from your supply house.



The J. B. Ford Co., Sole Mfrs.
Wyandotte, Mich.

ARTESIAN WELLS
27 Years' Experience
9 Complete Rigs Operating Every
Southern State
**Virginia Machinery & Well Co.,
Inc.**
Box 1212 Richmond, Va.

Save in freight by using
W I L T S
Veneer Packing Cases

They are lighter and stronger, made of perfect 3-ply Veneer Packing Case Shooks. A saving of 20 to 80 pounds in freight on every shipment because of extreme lightness. Stronger than inch boards, burglarproof, waterproof and clean. Write for prices and samples. Convincing prices—Quick service.
Wilts Veneer Co., Richmond, Va.

Joseph L. Davidson Co.
Established 1889

Designing Card Stamping Repeating
FOR ALL TEXTILE FABRICS

2525 N. Second St., Philadelphia, Pa.

**WELL DRILLING AND DEEP WELL
PUMPS**

We do the engineering, and have had 32 years experience solving water problems satisfactorily for textile mills.

Sydney Pump & Well Co., Inc.
Richmond, Va.

Carding and Spinning

(Continued from Page 13)

at the beamer. The method of calculating the weight is the same as for the beam warper, the only difference being a large number of ends.

Example.—Number of ends 1,600; number of yards 4,000; number of yarn 30; what is the weight of the warp?

$$\frac{1600 \times 4000}{840 \times 30} = 253.9 \text{ pounds}$$

If the warp were two-ply, as it frequently is, the actual number would be 15 instead of 30, and the warps would be twice as heavy.

Warps are usually ordered with so many cuts of a definite number of yards each. The apparatus for measuring the length is a simple train of gears very much like that on a beam warper. The measuring roll is 8 inches in diameter, or more exactly, 24 inches in circumference, and is driven at three times the speed of the main shaft, so that 8 inches of yarn are delivered for each revolution of the driving shaft; or to express it in another way, the driving shaft must turn $4\frac{1}{2}$ times for each yard in the cut. The problem then is to get a train of gears so that the pin wheel, or the disk on which is a pin for striking the bell, revolves one time for the required number of yards. Let us take the gears as follows:

Worm=1
Worm gear=81
Small gear on worm shaft—
Large gear on pin wheel=85
Required number of yards in cut=51

What change gear will be required.

$$\frac{81 \times 85}{4\frac{1}{2} \times 1 \times 51} = \text{Change gear}$$

This works out 30, which is the gear required. It frequently happens that it does not work out an even number of teeth, in which case one of the other gears must be changed, and the only way to do is to keep trying until we get the required combination.

PRODUCTION

The driving shaft generally runs from 150 to 200 revolutions per minute, and as it takes $4\frac{1}{2}$ revolutions to make a yard, the theoretical production is readily calculated. It takes a long time to creel a warper and some time to take leases and piece up broken ends, so that 60 per cent of the theoretical production is about what can be expected. This should increase somewhat with finer yarn.

Production of Denn Warper Per 100 Spools

No. of Yarn	Speed of Shaft					
	150	160	170	180	190	200
8	178	190	202	213	225	237
10	142	152	161	173	181	189
12	119	127	134	143	150	158
14	102	109	115	122	129	136
16	89	95	101	107	112	118
18	70	84	89	95	100	105
20	71	76	80	85	90	95
22	65	69	73	78	82	87
24	59	63	67	71	74	78
26	55	58	62	66	70	73
28	51	54	57	61	64	68
30	47	50	53	56	59	62
32	44	47	50	53	55	58
34	42	44	47	50	52	55
36	39	42	44	47	49	52
38	37	40	42	44	46	49
40	35	38	40	42	44	47
42	33	36	38	40	42	44
44	32	34	36	38	40	42
46	31	33	35	37	39	41
48	29	31	33	35	37	38
50	27	30	32	34	35	36

*The publishers of this work are prepared to furnish, at \$1.00 per copy, a book containing every possible combination of gears for making changes in the length of the cut. There are over 1,000 changes given and the overseer can tell at a glance the proper gears for any length of cut desired. No one who uses a Denn warper can afford to be without it.

TROUBLES IN WARPING

Stop Motion Not Acting.—The electric apparatus is very simple and likely to get out of fix. If only one section fails to act, it is evidence that a connection is broken and the wires should be carefully examined. If none of the sections act, try the bell to see if there is any current. If there is, one of the main connections is loose. If there is not, it is probable that oil is on the end of the commutator, or that the spring is not tight against it.

(Continued Next Week)

\$100,000 INVOLVED IN SUBURBAN LAND SALE

Seventy-five Acres of J. Van Lindley Estate Purchased by First Realty and Loan Company

Over \$100,000 was involved in the sale yesterday of 75 acres of the J. Van Lindley estate, located on the Winston-Salem road just north of the Masonic home, to the First Realty and Loan Company.

This tract of land has a frontage of about 1,700 feet on the Greensboro-Winston-Salem highway. The First Realty and Loan Company is planning to develop it into residential property. The sale was negotiated by T. V. Carter.

The land described above is planted in choice varieties of flowering shrubs, trees, etc., and a clearance price will be made on them to Textile plants or others interested, that can use a quantity. Write for full particulars.

J. Van Lindley Nursery Co.
Pomona, N. C.

Improved Dobby Chain



Dobby Cords



Rice Dobby Chain Co.
Millbury, Mass.
Send Us Your Order Today

PATENTS

Trade Marks and Copyrights

Difficult and rejected cases specially solicited. No misleading inducements made to secure business. Over thirty years active practice. Experienced, personal, conscientious service.

Write for terms. Address

SIGGERS & SIGGERS

Patent Lawyers

Suite 34 N. U. Washington, D. C.

SPINNING RING SPECIALISTS
FOR MORE THAN FIFTY YEARS

SPINNING RINGS
TWISTER RINGS
SILK RINGS



DIAMOND FINISH
TRAVELLER CLEANERS
TRAVELLER CUPS
GUIDE WIRE SETS

WHITINSVILLE
SPINNING RING CO.
WHITINSVILLE, MASS.

Dividend List Reported

Spartanburg, S. C.—That very few of the Southern cotton mill corporations earned during the last six months of 1924 sufficient income to pay dividends and that in a great many instances the regular semi-annual dividends were paid from surpluses accumulated in past years, is the interesting observation made by A. M. Law & Co., in connection with a comprehensive compilation made by this firm of investment brokers of dividends paid by more than 100 Southern cotton mills.

It has been the policy of most Southern mills, say A. M. Law & Co., to pay a relatively low rate in comparison with earnings during good years and maintain this date under depressed conditions as well, for the protection of investors who hold stock for a permanent income.

The following compilation by A. M. Law & Co. shows the semi-annual dividends paid for the past half year and includes most of the large corporations except those which are closed corporations and do not give out information of this character. Those mills which have other dividend periods than January 1 are also not included. The list follows:

Mill	Div. Rate P.C.
Abbeville Cotton Mills	3
Alexander Mfg. Co.	3
Alexander Mfg. Co.	4
Altavista Cotton Mills	3
Alice Mfg. Co.	3 1/2
American Spinning Co.	5
Aragon Cotton Mills	2
Aragon Cotton Mills	3 1/2
Arcadia Mills	5
Arcadia Mills	3 1/2
Avondale Mills	15
Baldwin Cotton Mills	14
Baldwin Cotton Mills	17
Beaumont Mfg. Co.	5
Beaumont Mfg. Co.	3
Belton Mills	2
Belton Mills	3 1/2
Brandon Mills	3 1/2
Brogan Mills	2
Calhoun Mills	2
Cannon Mfg. Co.	1 1/2
Chesnee Mills	5
Caswell Cotton Mills	3
Caswell Cotton Mills	3 1/2
Clinfield Mfg. Co.	3
Clifton Mfg. Co.	4
Clinton Cotton Mills	4
Chiquola Mfg. Co.	5
Chiquola Mfg. Co.	3
Columbus Mfg. Co.	4
Cowpens Mills	4
D. E. Converse Co.	3 1/2
Dacotah Cotton Mills	5
Dacotah Cotton Mills	3 1/2
Dallas Mfg. Co.	3
Darlington Mfg. Co.	2 1/2
Darlington Mfg. Co.	3 1/2
Drayton Mills	3 1/2
Duncan Mills	14
Eastside Mfg. Co.	4
Edenton Cotton Mills	4
Edna Cotton Mills	1 1/2
Eldred Mfg. Co.	5
Elizabeth City Cotton Mills	1
Elmira Cotton Mills	2
Equinox Mills	5
Enoree Mills	1 1/2
Erwin Cotton Mills	1 1/2
Enterprise Mfg. Co.	1 1/2
Fairmont Mfg. Co.	5
Fairmont Mfg. Co.	3 1/2
Fitzgerald Cotton Mills	5
Georgia-Kincaid Mills	2
Georgia-Kincaid Mills	3 1/2
Gibson Mfg. Co.	1 1/2
Glenwood Cotton Mills	1 1/2
Gluck Mills	4
Grendel Mills	3 1/2
Griffin Mfg. Co.	3 1/2
Hamrick Mills	5
Hart Cotton Mills	4
Hartsville Cotton Mills	3 1/2
Icemorlee Cotton Mills	2
Indian Head Mills	5
Inman Mills	3 1/2
Jackson Mills	4
Jefferson Mills	2
Jefferson Mills	1 1/2
Jefferson Mills	1 1/2
Jennings Cotton Mills	4
John P. King Mfg. Co.	3 1/2
Judson Mills	4
Lancaster Cotton Mills	1 1/2
Lancaster Cotton Mills	5
Laurens Cotton Mills	3 1/2
Limestone Cotton Mills	4
Limestone Cotton Mills	5

Locke Cotton Mills	4
Lydia Cotton Mills	4
Manchester Cotton Mills	3
Mills Mills	4
Mansfield Mills	2
Mollohon Mfg. Co.	3
Myers Mills	3 1/2
Monarch Mills	3 1/2
Monarch Mills	3 1/2
Norwood Mfg. Co.	2
Oakland Cotton Mills	3
Orr Cotton Mills	3 1/2
Pacolet Mfg. Co.	5
Pacolet Mfg. Co.	3 1/2
Pickens Mills	2
Piedmont Mfg. Co.	4
Pinkney Mills	2
F. W. Poe Mfg. Co.	1 1/2
Poinsett Mills	1 1/2
Riverside & Dan River Mills	3
Riverside Mfg. Co.	3
Spartan Mills	4
Saxon Mills	3
Sanford Cotton Mills	3
Strickland Cotton Mills	4
Tallapoosa Mills	2
Toxaway Mills	2
Thomaston Cotton Mills	2
Thomaston Cotton Mills	4
The Trion Co.	3 1/2
Unity Cotton Mills	6
Victor-Monaghan Co.	1 1/2
Ware Shoals Mfg. Co.	2
Ware Shoals Mfg. Co.	3 1/2
Williamston Mills	2 1/2
Woodruff Cotton Mills	3
Woodside Cotton Mills	3 1/2
Woodside Cotton Mills	3 1/2
West Point Mfg. Co.	2
Winslow Mills	2
Winslow Mills	1 1/2
Wiscasset Mills Co.	5

*Quarterly. †Annually.

Facts for Jones.

There is a rumor in cotton mill circles that two wealthy capitalists, identified with the mills of North Carolina and Georgia, purchased large blocks of stock in a Texas concern that was launched last year. It looks so good to the local people that they politely requested the North Carolinian and the Georgian to withdraw from the concern, paying them dollar for dollar on their investment.

This did not happen in the city of El Paso. The new cotton mill in El Paso has 5,016 spindles and will have at least 250 employees working day and night shifts. The cost of the mill is around \$500,000 and the capital was provided by El Paso business men.

Post City, in Garza county, has a successful cotton mill. Garza county cotton crop last year exceeded 12,000 bales as compared with 10,000 bales in 1923. Not many years ago Garza was a wilderness. Now cotton growers are numerous in the section and the cotton mills at Post are said to be earning large dividends.—Austin (Tex.) American.

United States Imports of Cotton Cloth Decline.

The United States imports of cotton cloth during the 11 months ended November 30, 1924, totalled 159,470,429 square yards valued at \$33,820,489, against 196,739,867 square yards with a value of \$42,739,246 for the corresponding period of 1923. The share of grey (unbleached) goods, however, increased from 84,145,485 square yards in 1923 to 100,946,512 in 1924 for the 11 month period. The principal sources of these imports in 1924 were: United Kingdom, 135,180,158 square yards, \$27,811,358; France, 5,752,657 square yards, \$1,988,812; Switzerland, 4,959,234 square yards, \$1,303,583. Comparative figures for 1923 are: United Kingdom, 178,616,392 square yards, \$37,557,453; France, 8,643,649 square yards, \$2,974,635; Switzerland, 13,887,500 square yards, \$2,907,468.



SUDDUTH & WALNE

Cotton

Vicksburg, Miss.

J. L. GRAFTON & CO.

Cotton

Mississippi and Delta Staples a Specialty.

Clarksdale, Miss.

WHEATLEY & CO.

Cotton

Greenwood, Miss.

J. D. McLEMORE, JR.

Cotton

Mississippi, Louisiana and Arkansas Short and Benders.

Yazoo, Miss., Delta Extra Staples.

Clarksdale, Miss.

WENTWORTH Double Duty Travelers

Last Longer, Make Stronger Yarn. Run Clear, Preserve the SPINNING RING. The greatest improvement entering the spinning room since the advent of the HIGH SPEED SPINDLE.

Manufactured only by the

National Ring Traveler Co.

Providence, R. I.

31 W. First Street, Charlotte, N. C.



UNIVERSAL WINDING CO.

BOSTON

Textile Winding Machinery

Southern Office

1011 Johnston Building

Charlotte, N. C.

Frederick Jackson,
Southern Agent

Factory Office
Providence, R. I.

Cocker Machine and Foundry Company

Gastonia, N. C.

BUILDERS OF TEXTILE MACHINERY

Linking Warpers, Linkers, Baling Warpers, Baling Attachments, Section Beam Warpers, Long Chain Beamers, Short Chain Beamers, Warp Splitting Machines, Warp Dyeing Machines, Warp Doublers and Splitters, Warp Coilers, Boiling Out Boxes and Warp Washing Machines, Dye House Ballers.

RAW STOCK DYEING

We Specialize on Fast Colors
We reclaim burnt and damaged cotton
Prompt Service

SANDERS, SMITH & CO.

Charlotte, N. C.



JOSEPH NEWBURGER, President
D. W. BROOKS, Vice-President
W. H. WILLEY, Vice-President
NORMAN MONAGHAN, Secy-Treas.

NEWBURGER COTTON CO.

(INCORPORATED)

MEMPHIS - TENN.

Mississippi Delta Cotton our Specialty

S. B. WILSON & CO.
Cotton

Specialize in Benders and Staples. Established 1900
Memphis, Tenn., Clarksdale, Cleveland, Greenwood, Miss.

Gastonia, N. C.
Under management of P. H. Fuller, Jr.

W. J. BRITTON & CO.
RIVERS, BENDERS and STAPLE
COTTON
105 S. Front St.
Memphis, Tenn, U. S. A.

G. D. TAYLOR
Mississippi Delta Staples
Home Office
Memphis, Tenn.

W. A. JONES & CO.
COTTON

123 South Front Street - - Memphis, Tenn.

DRAKE CORPORATION

*"Warp Dressing Service
Improves Weaving"*

NORFOLK - - VIRGINIA

Index To Advertisers

Where a — appears opposite a name it indicates that the advertisement does not appear in this issue.

	Page		Page
Allerton House Co. —	—	Langley, W. H. & Co. —	28
Allis-Chalmers Mfg. Co. —	—	Leslie, Evans & Co. —	28
American Laundry Machinery Co. —	—	Lestershire Spool & Mfg. Co. —	35
American Moistening Co. —	21	Landers Bros. Co. —	—
American Textile Banding Co. —	—	Link-Belt Co. —	15
American Trust Co. —	12	Lockwood, Greene & Co. —	—
Amory, Browne & Co. —	28	Lowell Shuttle Co. —	—
Anchor Post Iron Works —	17	—M—	—
Arabol Mfg. Co. —	—	Macrofil Fibre Co. —	—
Arnold, Hoffman & Co. —	—	Marston, Jno. P. Co. —	29
Ashworth Bros. —	34	Mathieson Alkali Works —	29
Atlanta Brush Co. —	—	Mauney Steel Co. —	26
Atlanta Harness & Reed Mfg. Co. —	30	Memphis Cotton —	—
—B—	—	Merrow Machine Co. —	27
Bahnsen Co. —	—	Metallic Drawing Roll Co. —	33
Bancroft, Jos. & Sons Co. —	—	Metz, H. A. & Co. —	35
Barber-Colman Co. —	17	Minter Homes Co. —	—
Barber Mfg. Co. —	—	Mississippi Cotton —	25
Borne, Serymser Co. —	—	Moreland Sizing Co. —	35
Bosson & Lane —	35	Morse Chain Co. —	36
Brown, David Co. —	22	Mossberg Pressed Steel Corp. —	13
Brown-St. Onge Co. —	—	—Mc—	—
Butterworth, H. W. & Sons Co. —	—	McCaughey, Edward J. —	29
—C—	—	—N—	—
Carrier Engineering Corp. —	—	National Aniline & Chemical Co. —	—
Carter, A. B. —	—	National Ring Traveler Co. —	25
Catlin & Co. —	29	Newburger Cotton Co. —	26
Charlotte Leather Belting Co. —	—	N. Y. & N. J. Lubricant Co. —	—
Chicago Belting Co. —	—	North Carolina Cotton —	27
Chicago Fuse Mfg. Co. —	—	Norwood Engineering Co. —	34
Cocker Machine & Foundry Co. —	25	—P—	—
Collins Bros. Machine Co. —	—	Page Fence & Wire Products Assn. —	13
Cooper-Hewitt Electric Co. —	—	Paige, Schoolfield & Co. —	29
Corn Products Refining Co. —	2	Parker, Walter L. Co. —	—
Courtney, Dana S. Co. —	19	Parks-Cramer Co. —	3
Crompton & Knowles Loom Works —	—	Paulson, Linkroum & Co. —	29
Crump, F. M. & Co. —	—	Penick & Ford, Ltd. —	—
Curran & Barry —	28	Perkins, B. F. & Sons —	—
Curtis & Marble Machine Co. —	21	Puro Sanitary Drinking Fountain Co. —	—
Cyclone Fence Co. —	—	—R—	—
—D—	—	Republic Chemical Co. —	—
Dan Gear Co. —	14	R. I. Warp Stop Equipment Co. —	20
Dary Ring Traveler Co. —	30	Rice Dobby Chain Co. —	24
Davidson, Jos. L. Co. —	24	Ridley Watts & Co. —	29
Diamond State Fibre Co. —	—	Roesler & Hasslach Chemical Co. —	—
Dixon, R. L. & Bros. —	21	Rogers Fibre Co. —	36
Dixon Crucible Co., Joseph —	—	Root Co. —	—
Dixon Lubricating Saddle Co. —	26	Roy, B. S. & Son —	—
Drake Corp. —	26	—S—	—
Draper, E. S. —	20	Saco-Lowell Shops —	4
Draper Corp. —	—	Sanders, Smith & Co. —	25
Dronsfield Bros. —	—	Sayles Finishing Plants —	—
Druid Oak Belting Co. —	21	Scott, Henry L. & Co. —	22
Duplan Silk Corp. —	16	Seaboard Ry. —	—
DuPont de Nemours, E. I. & Co. —	—	Sellers, Wm. & Co. —	—
—E—	—	Seydel Chemical Co. —	12
Eclipse Textile Devices, Inc. —	—	Seydel-Thomas Co. —	—
Economy Baler Co. —	33	Siggers & Siggers —	24
Emmons Loom Harness Co. —	30	Sirrine, J. E. & Co. —	—
Entwistle, T. C. Co. —	—	S. K. F. Industries —	—
—F—	—	Slip-Not Belting Corp. —	—
Fafnir Bearing Co. —	—	Sonoco Products —	17
Fales & Jenks Machine Co. —	—	Southern Distributing Co. —	36
Farrish Co. —	20	Southern Ry. —	—
Ferguson Gear Co. —	14	Southern Spindle & Flyer Co. —	—
Firemen's Mutual Insurance Co. —	—	Spinks, John D. —	—
Ford, J. B. Co. —	24	Stafford Co. —	19
Fournier & Lemoine —	—	Steel Heddle Mfg. Co. —	—
Franklin Process Co. —	—	Stein, Hall & Co. —	24
—G—	—	Sydnor Pump & Well Co. —	—
Gates Lumber Co. —	30	—T—	—
Garland Mfg. Co. —	—	Tatum, Pinkham & Greey —	28
General Electric Co. —	—	Textile Finishing Machinery Co. —	1
Georgia Webbing & Tape Co. —	—	Terrell Machine Co. —	27
Graton & Knight Mfg. Co. —	—	Texas Cotton —	—
Greensboro Loom-Reed Co. —	13	Textile Mill Supply Co. —	28
—H—	—	Thomas Grate Bar Co. —	—
Hepworth, Jno. W. & Co. —	12	Tolhurst Machine Works —	30
H. & B. American Machine Co. —	8	Tripod Paint Co. —	—
High Point Loom Reed & Harness Co. —	30	—U—	—
Hollingsworth, J. D. —	—	United Chemical Products Co. —	35
Hopedale Mfg. Co. —	—	U. S. Bobbin & Shuttle Co. —	22
Houghton, E. F. & Co. —	7	U. S. Ring Traveler Co. —	30
Howard Bros. Mfg. Co. —	—	Universal Winding Co. —	25
Howard-Hickory Co. —	—	—V—	—
Hyatt Roller Bearing Co. —	—	Van Lindley, J. Nursery Co. —	24
—J—	—	Victor Ring Traveler Co. —	—
Jackson, Hill & Co. —	—	Virginia Machinery & Well Co. —	24
Jacobs, E. H. & Co. —	—	Vogel, Joseph A. Co. —	—
Johnson, Oliver & Co. —	—	—W—	—
Jordan Mfg. Co. —	22	Washburn Printing Co. —	23
—K—	—	Watson, L. S. Mfg. Co. —	2
Kaumagraph Co. —	—	Wellington, Sears & Co. —	28
Knitting Arts Exhibition —	9	Westinghouse Electric & Mfg. Co. —	—
Keever Starch Co. —	—	Whitin Machine Works —	—
Klauder-Weldon Dyeing Machine Co. —	17	Whitinsville Spinning Ring Co. —	24
—L—	—	Williams, J. H. Co. —	—
Ladew, Edward R. Co. —	10	Wilts Veneer Co. —	24
		Wolf, Jacques & Co. —	—
		Woods, T. B. Sons Co. —	35

DIXON LUBRICATING SADDLE CO.

BRISTOL, RHODE ISLAND



Use Dixon Patent Stirrup
Adjusting Saddles, the latest
invention in Saddles for Top
Rolls of Spinning Machines. Man-
ufacturers of all kinds of Saddles,
Stirrups and Levers.

WRITE FOR SAMPLES

Clark's Cotton Records

Statistics Week Ending Jan. 17, 1925.

	1925.	1924.	1923.
Visible supply American	4,716,000	3,042,000	3,263,000
Into sight during week	364,000	212,000	215,000
Mill takings during week	407,000	2,390,000	324,000
Mill takings since Aug. 1st	7,447,000	6,588,000	7,319,000
Exports during week	159,000	191,000	82,000
Exports since Aug. 1st	4,763,000	3,506,000	2,971,000

Government Reports.

Acreage this season	40,403,000	38,709,000	34,016,000
Indicated crop July 25	12,144,000	11,412,000	11,065,000
Indicated crop middle of July	11,934,000		
Indicated crop end of July	12,351,000	11,516,000	11,449,000
Indicated crop middle of Aug.	12,956,000		
Indicated crop end of Aug.	12,787,000	10,788,000	10,575,000
Indicated crop middle of Sept.	12,596,000		
Indicated crop end of Sept.	12,499,000	11,015,000	10,135,000
Indicated crop middle of Oct.	12,675,000		
Indicated crop end of Oct.	12,816,000		
Indicated crop middle of Nov.	12,992,000		
Indicated crop end of Nov.	13,153,000		
Ginned to Oct. 1st	4,527,671		
Ginned to Oct. 18th	7,600,826	6,415,145	6,078,321
Ginned to Nov. 14th	11,163,400		
Ginned to Dec. 1st	12,225,000		
Carryover beginning of cotton year	2,319,000	2,573,000	4,879,000

Cotton Exports.

Following is a comparison of the exports by months in running bales, including linters:

	1924.	1923.	1922.
August	277,641	244,415	272,808
September	737,010	689,435	378,390
October	947,556	781,722	798,664
November	1,306,000	770,002	858,337
December	1,076,000	845,581	607,853
January		546,253	473,436
February		482,146	359,657
March		332,168	318,210
April		320,774	259,984
May		326,357	160,368
June		230,979	214,851
July		211,633	171,469
		5,772,000	4,864,027

American Consumption of All Kinds of Cotton, Excluding Linters.

(In running bales, 000s omitted.)

	1924-25		1923-24		1922-24	
	Per Month	Per Season	Per Month	Per Season	Per Month	Per Season
August	357	357	492	492	526	526
September	435	793	484	975	494	1,020
October	530	1,322	542	1,517	534	1,554
November	492	1,814	532	2,049	579	2,133
December	533		462	2,510	529	2,663
January			577	3,088	610	3,273
February			508	3,595	567	3,840
March			484	4,079	624	4,464
April			480	4,559	577	5,041
May			414	4,991	621	5,661
June			350	5,341	542	6,203
July			347	5,688	463	6,666

Small Likelihood of Ratification.

In general the conviction seems to be growing that the child labor question is one to be worked out through the several State law-making bodies rather than through an amendment to the National Constitution supplemented by Federal legislation.

On the basis of the record to date, there seems to be small likelihood that the amendment will be ratified by the necessary number of States to insure its adoption. — Toppenish (Wash.) Tribune.

Edw. W. Geer J. Hoyt Geer

Geer & Geer

Cotton

EXPORT DOMESTIC

P. O. BOX 341

DALLAS, TEXAS

COTTON

Let Us Quote You

STEWART BROTHERS COTTON COMPANY

(Incorporated)

of New Orleans, La.

COTTON MERCHANTS

Charlotte, N. C.

STAPLES A SPECIALTY

Greenville, S. C.

Postal Phone

Local Phone 821

Long Distance Phone 9998

S. B. TANNER, JR.

Cotton

CHARLOTTE, N. C.

Representing

NEWBURGER COTTON CO.

TARVER, STEELE & COMPANY

Memphis, Tenn.

Dallas, Texas

William and York Wilson

Incorporated

Cotton Brokers

Rock Hill, S. C.

Representing reliable shippers throughout the cotton belt.

J. EDW. KALE & CO.

Cotton Brokers and Merchants

Extra staples and Short Cotton
Lincolnton, N. C.

SANDERS, ORR & CO.

Cotton

Charlotte, N. C.

J. L. BUSSEY & CO.

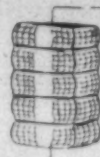
Cotton

Greenville, S. C.

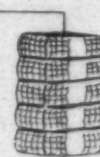
H. H. WOLFE & CO.

Cotton

Monroe, N. C.



TEXAS COTTON



GOOD SPINNING — SMALL WASTE

LAMPE-THOMAS CO., Inc.

Fort Worth, Texas

Cotton Merchants

Texas, Oklahoma, Arkansas Cottons

M E R R O W I N G

Established 1838

FOR

Stocking Welting
Toe Closing
Mock SeamingMaximum Production
Minimum Cost of Upkeep
Unexcelled Quality of Work

THE MERROW MACHINE COMPANY

20 Laurel Street, Hartford, Conn

SELLING AGENTS for SOUTHERN COTTON GOODS

Leslie, Evans & Company
64 Leonard Street New York
Selling Agents for Southern Mills
Sheetings, Print Cloth, Drills, Twills, Ducks

W. H. LANGLEY & CO.
COMMISSION MERCHANTS
57 Worth St. New York
Sole Selling Agents For
Langley Mills, Seminole Mills, Aiken Mills, Anderson Cotton Mills,
Strickland Cotton Mills, Moultrie Cotton Mills, Poulan Cotton Mills,
Royal Cotton Mills

TATUM, PINKHAM & GREEY
40 Leonard Street
New York
Bleached, Grey and Colored Cotton Goods

Wellington, Sears & Company
93 Franklin St., Boston 66 Worth St., New York
Philadelphia Chicago St. Louis Atlanta New Orleans San Francisco

Amory, Browne & Co.
Specializing in Selling Cotton Mill Products
BOSTON, 48 Franklin St. 62 Worth St., NEW YORK
Our Export Department Serves 69 Foreign Countries

CURRAN & BARRY
320 Broadway
New York, N. Y.

Southeastern Selling Agency
LESSER-GOLDMAN COTTON COMPANY
OF ST. LOUIS, MO.
P. H. PARTRIDGE, Agent, Charlotte, N. C.
Extra staples, and good 1 1-16 and 1 1/2 cotton from Arkansas,
Oklahoma, and Texas, and Memphis territory.

Fire Without Having A Cleaning Period On

Thomas WSD Grate Bars
For Use with Either Natural, Induced or Forced Draft
FOR DETAILED INFORMATION WRITE
THOMAS GRATE BAR COMPANY
BIRMINGHAM, ALA.

Cotton Goods

New York. — There was a fair amount of business in the unfinished lines of cotton goods last week, especially in print cloths and some of the finer goods. Sales were not general enough to cover many constructions, most of the buying being limited to staple wide fabrics. New lines of cotton and cotton and wool blankets for fall were opened, the prices being from 3 to 10 per cent lower than they were last year.

There was some increase in the amount of business done on gingham. Other colored goods were held firm, but sales were only of moderate volume. Bleached goods were firm and quiet. Many novelty goods in colors and designs were shown and sold well to the wholesalers. Wide sheetings, sheets and pillow cases held steady and were sold in good volume to the retail trade.

There was only a very limited amount of trading in tire fabrics. Prices were not quite as firm as during the preceding week. None of the large tire makers were in the market. Cotton duck showed some improvement. Sales generally were not large, but there was a good volume of small order business. The price list was practically unchanged, the best demand being for single filling duck.

Print cloths sold at 10 1/2 cents for some spots of 68x72s and 10 1/4 cents for contracts. It is said that this number is very scarce for nearby delivery. For 4-yard 80s 13 1/2 cents cannot be done for deliveries before April, and spots are not plentiful at 13 1/4 cents. For 64x60s, 9 1/4 cents is the best that can be done. Sales were small.

Sheetings sold at 10 1/2 cents for 4-yard and 7 1/4 cents for 6.15s. For 3-yard goods 13 1/4 cents seems the best that can be done, and inquiries for small lots were in. Other goods were quiet and unchanged.

Fine goods trading was considerably smaller as the week ended. There were small sales of spot broadcloths at unchanged prices. The 128-68s sold at 23 1/2 cents, the same price at which a preferred mill make contract had sold for. There had been a considerable business in futures with many constructions figuring in sales. There was talk of the purchasing of more than usual amounts of sub-counts. There was a cabled offer of some English two-ply both ways Egyptian 100s at 21 1/2d or 53 cents landed.

This is considered the best price so far this week. Some February goods could be provided, it was stated. The return to favor of the two-ply both ways and the two-ply and single was marked during the past few days. This is the only class of constructions which are coming from abroad in a fair way on new contracts. Voiles dropped in inquiry while prices held to the 12 cents to 12 1/2 cents basis for actual business in ordinary hard twist styles. Silk and cotton mixtures

were firmer in some first hands.

There has been only a moderate demand noted in Fall River print cloth market for the week, though the market has been quite steady. Prices generally continue unchanged and though the sales are estimated at 60,000 pieces practically half of the business has been confined to trading in the low counts, sales of which are unusually unlisted. Included in the latter are sales of some 10,000 pieces of 25-inch 52x44 constructions at 5 cents and a few curtain goods for deliveries running through the next two to three weeks. The 36-inch constructions were on the whole in fairly good demand, but the wider print yarn goods were very quiet.

John V. Farwell Company, Chicago, says in its weekly review of trade:

"Wholesale dry goods business continues to show increased activity in line with general trade improvement. Normal winter weather is helping retailers' clearance of heavy apparel lines. Buyers have been in market in much larger numbers than during corresponding half month in January of last year. Mills have named prices on cotton blankets for fall, 1925. Products being taken up rapidly, and one of the most prominent blanket mills' deliveries have been extended into September. Spot wash goods business is very good, centering on striped suitings.

Cotton goods prices were quoted as follows:

Print cloths, 28-in., 64x64s.	7%
Print cloths, 28-in., 64x60s.	7%
Print cloths, 27-in., 64x60s.	6%
Gray goods, 38 1/2-in., 64x60s.	9%
Gray goods, 39-in., 68x72s.	10%
Gray goods, 39-in., 80x80s.	13%
Brown sheetings, 3-yard.	14 1/2%
Brown sheetings, 4-yard.	11%
Brown sheetings, standard.	15 1/2%
Ticking, 8-ounce.	26
Denims.	19 1/2%
Staple gingham, 27-in.	10 1/2%
Kid finished cambrics.	9 a10
Dress gingham.	17 1/2 a20
Standard prints.	9%

United States Exports of Cotton Cloth Increase.

United States exports of cotton cloth during the first 11 months of 1924 amounted to 434,857,656 square yards valued at \$71,497,114 compared with 429,469,423 square yards with a value of \$73,359,919 during the corresponding period of 1923. Of these amounts, duck comprised 8,356,556 square yards valued at \$3,824,557 in 1924 and 8,290,400 square yards worth \$3,769,638 in 1923. The outstanding feature of the 1924 exports is the increase in sales of cloth to Central America and Colombia. The chief purchasers of cotton goods other than duck, for the 1924 period are: Cuba, Philippine Islands, Central America, Canada, and Colombia.

The Yarn Market

Philadelphia, Pa.—The yarn markets continued very dull throughout the last week. Sales were almost entirely confined to small spot lots of yarns, with an occasional order of moderate size for future shipment. Prices quoted in this market by dealers show that they have reduced spot yarns considerably under spinners' prices. The latter have been held very firm in the face of the poor demand, although some offerings by mills at concessions have been noted. Buyers continued very hesitant in their attitude and were inclined to bargain hunt and haggle over prices. They showed little interest in future requirements.

Combed yarns continued to show strength. Prices from Southern mills showed that practically all two-ply combed yarns were advanced from 2 to 5 cents a pound. Business placed on combed yarns was limited, but the high price and scarcity of staple cotton has kept prices up.

The improvement in yarn trade which was generally expected by the middle of the month has failed to come to light so far. Predictions of a new buying movement has not been fulfilled, but most factors in the trade believe that the improvement should come shortly. Mill stocks are generally reported very low and while Southern mills are operating very freely, they are reported as working on orders and not piling up stocks.

The greatest reductions noted during the week were on 20s and 30s two-ply warps.

The price list, which was considered purely nominal, was published in this market as follows:

Southern Two-Ply Chain Warps.			
2-ply 6s	41 a	2-ply 26s	49 a50
10s	42 a	2-ply 30s	50 1/2 a51
2-ply 16s	43 a	2-ply 40s	58 a60
2-ply 20s	44 1/2 a45	2-ply 50s	66 a68
2-ply 24s	48 a		
Southern Two-Ply Skeins.			
8s	39 1/2 a	40s	55 a57
10s to 12s	41 a42	40s ex.	58 a60
14s	42 1/2 a	50s	65 a67
16s	43 1/2 a	60s	74 a
20s	44 a44 1/2	Tinged Carpet	
24s	47 a	3 and 4-ply 36 1/2 a37 1/2	
26s	48 a	White Carpet	
30s	50 a51	3 and 4-ply 38	a39
36s	54 a		
Part Waste Insulated Yarn.			
8s, 1-ply	35 a36	12s, 2-ply	39 a40
8s, 2, 3 and		20s, 2-ply	44 a
4-ply	26 a37	26s, 2-ply	48 a
10s, 1-ply and		30s, 2-ply	50 a
3-ply	37 1/2 a38		
Duck Yarns.			
3, 4 and 5-ply		3, 4 and 5-ply	
8s	40 a	16s	44 a
10s	41 a	20s	45 a
12s	42 a		
Southern Single Chain Warps.			
10s	41 1/2 a	24s	48 a
12s	42 a	26s	49 a
14s	42 1/2 a	30s	50 a51
16s	43 1/2 a	40s	57 a58
20s	44 a		
Southern Single Skeins.			
6s to 8s	39 a	20s	44 a
10s	40 a	24s	46 1/2 a
12s	41 a	26s	48 a
14s	42 a	30s	50 a
16s	43 a		

Southern Frame Cones.

8s	39 a	22s	42 1/2 a
10s	39 1/2 a	24s	44 a
12s	40 a	26s	44 a44 1/2
14s	40 1/2 a	28s	46 a
16s	41 a	30s	48 a
18s	41 1/2 a	30s tying in	47 a
20s	42 a	40s	56 a57

Southern Combed Peeler Skeins, Etc.			
2-ply 16s	55 a56	2-ply 50s	75 a
2-ply 20s	57 a58	2-ply 60s	85 a
2-ply 30s	60 a62	2-ply 70s	95 a
2-ply 36s	63 a67	2-ply 80s	1 05a
2-ply 40s	67 a70		

Southern Combed Peeler Cones.

10s	50 a	30s	60 a
12s	51 a	32s	62 a
14s	52 a	34s	64 a
16s	53 1/2 a	36s	65 a
18s	54 a	38s	68 a
20s	55 1/2 a	40s	70 a
22s	56 a	50s	75 a
24s	57 1/2 a	60s	85 a
26s	58 a	70s	95 a
28s	59 a	80s	1 05a

Eastern Carded Peeler Thread Twist Skeins.

6s, 2-ply	52 a	36s, 2-ply	62 a
8s, 2-ply	53 a	40s, 2-ply	64 a
10s, 2-ply	55 a	45s, 2-ply	69 a
20s, 2-ply	58 a	50s, 2-ply	74 a

Yarn Spinners' Bulletin.

The weekly bulletin of the Southern Yarn Spinners' Association says:

"The yarn market remains quiet with but little demand except for immediate deliveries. Spinners' prices holding firm at an advance over reported quotations. The expected buying movement has not materialized. Consumers are apparently waiting for complete inventory returns before committing themselves to further purchases. The slight movements of cotton has tended to retard any material operations in yarn.

"The review of the trade situation in the Eastern papers gives the consensus of opinion of representatives in various lines of endeavor that the potential possibilities of the market is strong. Stocks are at a minimum, and the purchasing power of this and European countries are stronger than has been for years. All indications point to a successful year's business.

"The spinners' conservative policy in keeping production well within the limits of demand has stabilized and strengthened the market. An over-production in the face of the present slack demand would tend to demoralize prices and materially retard the buying movement."

Production of Finishing Plants.

The monthly statement of percentage of normal average capacity operated in the industry, as reported to the Cotton Fabric Finishers' Association, is as follows:

	Nov., 1924.	Dec., 1924.
White	62	66
Dyes	86	84
Last black	40	45
Logwood black	33	20
Prints	49	56

Paulson, Linkroum & Co., Inc.

52 Leonard Street, NEW YORK CITY, U. S. A.

COTTON YARNS

Philadelphia

Providence

Chicago

Charlotte

CATLIN & COMPANY

NEW YORK BOSTON PHILADELPHIA CHICAGO

Commission Merchants

Cotton Cloth and Cotton Yarn

SOUTHERN OFFICE

910-11 Commercial Bank Bldg.

CHARLOTTE, N. C.

Gum Tragasol Agglutinates

the fibres of the yarn—cotton, woolen or worsted which ever it may be—and prevents waste of good materials by eliminating flyings.

Gum Tragasol is Cheaper

than either wool or cotton, therefore, its use is a distinct economy.

JOHN P. MARSTON COMPANY

247 Atlantic Avenue, Boston

D. H. Mauney, Pres. Phil S. Steel, Vice-Pres. Frank W. Felsburg, 2nd V.-Pres. J. S. P. Carpenter, Treasurer D. A. Rudisill, Secretary

Mauney-Steel Company

COTTON YARNS

DIRECT FROM SPINNERS TO CONSUMER

237 Chestnut Street. Philadelphia, Pa.
Eastern Office, 336 Grosvenor Bldg., Providence, R. I.
Southern Office: Cherryville, N. C.

MILLS DESIRING DIRECT REPRESENTATION AND HAVE THEIR PRODUCT SOLD UNDER THEIR OWN MILL NAME WILL PLEASE COMMUNICATE.

RIDLEY WATTS & Co.

COMMISSION MERCHANTS

44-46 Leonard Street NEW YORK CITY

Branch Offices

Chicago

St. Louis

Philadelphia

Baltimore

Boston

COTTON YARNS

All Numbers, Regular, Reverse and Fancy Twists. Mills wishing to sell direct to discriminating customers please write, stating counts and quality, carded or combed, skeins, ball or chain warps, tubes or cones. Sales to customers by wire on mill's acceptance and approval

Edward J. McCaughey

YARN BROKER

51 Arlington St., Pawtucket, R. I.

DIRECT MILL AGENT

PAIGE, SCHOOLFIELD & CO., INC.

CARDED AND COMBED COTTON YARNS
SOLE REPRESENTATIVES

Mandeville Mills, Carrollton, Ga.
Audrey Spinning Mills, Inc., Weldon, N. C.
White Hall Yarn Mills, White Hall, Ga.
Chatham Mfg. Co. (Cotton Dept.), Elkin, N. C.
Singles and Plies—Right and Reverse Twists
Cable Cords—Ratines and Colors
1 Madison Ave., New York City

PHILADELPHIA

PROVIDENCE

Want Department

"Attention"

Wanted — Position as superintendent. Now employed. On present job five years. Address O. P. ca Southern Textile Bulletin.

For Sale

1 Keeler Horizontal Return Tubular Boiler, 90 H. P., 60" diameter, 17 feet long. To carry 100 lbs pressure. The Randolph Mills, Franklinville, N. C.

Wanted

Young man to install machinery in cotton mills. Must have some mill experience, at least a High School education and be free to travel. Write in your own hand, giving age, experience, family, etc. Address "Installer," care Southern Textile Bulletin.

Salesman

Wanted

By an old established concern, an experienced salesman who can sell Specialties to the mills in the Southern territory. One who has sold cotton softeners, cotton finishes, filling agents, oils, soaps, etc. Address E. B. L., care Southern Textile Bulletin.

Overseer Wanted

We have opening for an experienced overseer of weaving on napped goods. Must be reliable. Write, giving full particulars, to C. Y. F., care Southern Textile Bulletin.

Help Wanted

Opening for several spindle plumbers. Must be first-class, good appearance and gentlemen. Wire or write quick, Yates D. Smith, Gastonia, N. C.

For Sale

1 lot of 16 Gordon Hay Cleaning Machines. 45"—3 section, with hopper feed. In whole or in part. At a sacrifice. Maginnis Cotton Mills, New Orleans, La.

"ATLANTA" HARNESS

"Quality and Service That Satisfies"

ATLANTA HARNESS & REED MFG. CO.

ATLANTA, GA.
P. O. Box 1375
Telephone Main 0517

Book Salesman Wanted

We want to get in touch with a salesman, woman preferred, who can sell "The Better Way," "Hearts of Gold," "Will Allen Sinner" and other books of Becky Ann (Mrs. Ethel Thomas) in the cotton mill villages.

The stories of Becky Ann deal with cotton mill life and are very popular in the mill villages. They sell for \$1.00 each.

CLARK PUBLISHING COMPANY
Charlotte, N. C.

WANTED

To Sell—?
To Buy—?
To Exchange—?
Employment—?
Help—?

"Want Ads" in the SOUTHERN TEXTILE BULLETIN Get

RESULTS

Rates: \$1.50 per inch per insertion



Ring Traveler Specialists U. S. Ring Traveler Co.

159 Aborn Street, PROVIDENCE, R. I.

ANTONIO SPENCER, President

AMOS M. BOWEN, Treasurer

WM. F. VAUGHAN, Southern Representative

P. O. Box 792

GREENVILLE, S. C.

U. S. Ring Travelers are uniformly tempered which insures even-running spinning. They are also correct as to weight and circles. Quality guaranteed.

COTTON MILL SITE IN ARKANSAS

FOR SALE

INCLUDING POWER PLANT

Established Town—Good Water—Ample Labor
Adjacent to Another Cotton Mill

Old established lumber company having cut out its timber supply offers this rare opportunity to acquire a splendid, well organized and populated community in heart of Arkansas' cotton growing region. Prompt attention to inquiries.

Address B. A. Cannon, General Manager

GATES LUMBER COMPANY, WILMAR, ARK.

EMMONS LOOM HARNESS COMPANY

The Largest Manufacturers of Loom Harness and Reeds in America

Loom Harness and Reeds

Slasher and Striking Combs, Warps and Leice Reeds.
Beamer and Dresser Hecks, Mending Eyes, Jacquard
Heddles

LAWRENCE, MASS.

DARY TRAVELERS



If it's a DARY Ring Traveler, you can depend on it that the high quality is guaranteed—that the weight and circle is always correct, and that all are uniformly tempered which insures even running, spinning or twisting.

Ask for prices

DARY RING TRAVELER COMPANY

311 Somerset Ave.

Fred H. Dary, Mgr.

Taunton, Mass.

JOHN E. HUMPHRIES
Greenville, S. C.

—Sou. Agents—

CHAS. L. ASHLEY
Atlanta, Ga.

THE TRIPOD PAINT COMPANY

—MANUFACTURERS—

ATLANTA GEORGIA

MILL WHITES, PAINTS, STAINS, Etc.

Write for Prices and Free Samples

Hollingsworth on Wheels For Lickerins

My unsurpassed service in rewinding Lickerins has pleased the largest and most exacting mills. You are due yourself an investigation.

Write for Testimonials
Box 69, Greenville, S. C.

Yarn Lustre in Relation to Twist

(Continued from Page 10)

manufacture. Need for greater regularity was thus rendered apparent, and whilst the matter was of general importance, he expressed the view, especially in the interests of the hosiery trade, that it was desirable that something should be devised with a view to bringing about improvements. He, therefore, strongly accentuated the consideration that it would be to the mutual advantage of those concerned in the trade to effect the improvements which were necessary, and towards that end nothing was more desirable than those connected with hosiery production should manifest a close interest in the work of those who were engaged in the Lancashire spinning industry.

Cotton Hosiery.

Dr. Oxley had referred to the variations of strength under increased twist, and Professor Davis made the suggestion to him that in his further investigations it would be interesting to indicate by the curves how the strength of double yarn increased with the twist. That which was required in the hosiery trade was a yarn of soft handle in addition to its possession of strength. Lustre constituted one of the chief factors in regard to fashion, saleability of fabrics largely depending thereon.

Removing Rust Spots From Fabric

GREASE spots often leave on white goods yellow or brown stains caused by metallic salts, usually salts of iron and occasionally salts of other metals, such as copper, brass and silver. Dyers are familiar with the spots caused by the wash rolls, as well as those caused by commonly used medicines, or by ink used for marking white goods. Spots caused by copper or by iron rust are usually removed by moistening the spots by concentrated hydrochloric acid or by soaking the goods in a dilute bath of hydrochloric acid and then subjecting the material to several successive rinsings in hot water. For slight stains the cloth is boiled or washed with a hot solution of fluoride of potassium (tofrazine).

New Process.

A new process for removing rust spots has recently been brought out, and is based on the dissolving action of solutions of fluosilicate of magnesia and of soda. From 3 per cent to 6 per cent solutions are used hot, the cloth being immersed until the rust spot has disappeared, then immediately rinsed in hot water. The goods are also treated in a dilute solution of carbonate of soda in case the cloth has not passed through a soap solution.

For spots caused by verdigris the fabric is saturated with concentrated ammonia, and the stain is rubbed with a cloth also saturated in the ammonia. It is then rinsed and the

last traces of the spot removed by a hot solution of fluoride of potassium or with a dilute and cold solution of hydrochloric acid. The cloth is then thoroughly rinsed.

Spots caused by nitrate of silver are moistened and then rubbed with iodine or with a 10 per cent solution of iodine of potassium. After a few moments the goods are rinsed in a solution of hypochlorite of soda until the spot is completely removed. Any yellow traces that remain are removed with fluoride of potassium.

Cyanide of Potassium.

Cyanide of potassium has been recommended for removing spots caused by copper and silver. On account of its poisonous character this substance should be used only by a competent person. It should not be used in a bleachery unless great precautions are taken and everybody warned of the danger of the poison.

Metallic spots should always be removed before the cloth has passed through a bleaching solution, otherwise an intense oxidizing action will take place at the stained places as a result of the action of the metallic salts, and holes will be made in the fabric.

Stains in Fancy Goods.

Finally, there are the spots caused by the running of the color from dyed yarns, and which frequently are found in fancy goods. Such stains are usually removed by bleaching for materials that act by oxidation or reduction. Among the former are chlorine, perborate, peroxide of sodium and permanganate. Among the latter and most important is burmol.

Owing to the large number of dyes which can cause these spots, it is necessary to investigate each case in order to determine what is the best process for removing the color. In connection with the use of bleaching products it should be borne in mind that water of Javel should be used cold and never stronger than $\frac{1}{2}$ deg. Be. Materials which give off oxygen, such as perborate and peroxide of sodium, can be used in stronger solutions than are used ordinarily for bleaching. These solutions can be made with about two parts by weight of perborate or two and a half parts of peroxide in 1,000 parts of cold water.

Neutral Bath.

Bermol, which is used in a neutral bath or in a bath made alkaline by carbonate of soda is added in the proportion of 20 per cent of the weight of the cloth to be washed. It can also be applied directly by soaking and tamping the spot, which should be first moistened. The action of bermol is most effective at 194 deg. Fah. to 200 deg. Fah. Bermol possesses a strong decolorizing power, and should be used only on white goods.

The decolorizing solutions should never be placed in metallic receptacles. For water of Javel and bermol wooden receptacles are used. For other decolorizing solutions stone or porcelain-lined containers are used.—Wascherei-Centralblatt.

EMPLOYMENT BUREAU

The fee for joining our employment bureau for three months is \$2.00, which will also cover the cost of carrying a small advertisement for one month.

If the applicant is a subscriber to the Southern Textile Bulletin and his subscription is paid up to the date of his joining the employment bureau the above fee is only \$1.00.

During the three months' membership we send the applicant notices of all vacancies in the position which he desires and carry small advertisement for one month.

We do not guarantee to place every man who joins our employment bureau, but we do give them the best service of any employment bureau connected with the Southern Textile Industry.

WANT position as overseer small card room or second hand in large mill. Would also consider night overseer's place. References. No. 4374.

WANT position as overseer carding. Would prefer mill that is run down and not getting results where I would have chance to prove my ability. Age 30, married, sober, good references, 18 years' experience. Now employed. No. 4375.

WANT position as superintendent or overseer large card room. Prefer weave mill on plain work. Good references. No. 4376.

OFFICE man of unusual ability wants to correspond with mill needing man of long experience, age 33, married. Thoroughly acquainted with mill cost accounting. Excellent references. No. 4377.

WANT position as superintendent. Have had many years of excellent training and am capable in every respect. Excellent references. No. 4379.

WANT position as overseer spinning or second hand in large mill. Age 25, married, good habits, qualified by experience and training to handle room unusually well. References on request. No. 4380.

OVERSEER spinning with long experience wants position with large mill. Would consider carding and spinning in medium size plant. Prefer personal interview with parties desiring man of character and ability. No. 4381.

EXPERIENCED and capable overseer of weaving wants to make a change. Good reason for leaving present employer. Would appreciate opportunity to present references as to character and ability. No. 4382.

WANT position as overseer spinning and twisting or twisting and winding. Foster machines, hosiery yarns. Age 47, 20 years as overseer, have taken textile course for overseers. No. 4383.

EXPERIENCED superintendent who has successfully run a number of first-class mills desires to change. Excellent references to show past record. No. 4384.

WANT position as overseer weaving. Practical man of long experience who can get quality and quantity production on wide variety of fabrics. No. 4385.

WANT position as overseer carding or assistant superintendent. Long experience in card room and office. A-1 references. No. 4386.

WANT position as overseer cloth room. Long experience on high class plain and fancy goods. Now employed but wish larger place. Can furnish excellent references. No. 4387.

WANT position as carder or spinner or both, or overseer winding. Experienced overhauler and erector, formerly erector for Whitin Machine Works. First-class references. No. 4388.

WEAVE MILL superintendent, with 6 years' experience as such on both plain and fancy goods wishes good mill. College and textile school education. References. No. 4389.

WANT position as superintendent or overseer weaving. Capable man of long experience. Good habits, energetic and always on the job. Best of references. No. 4390.

OVERSEER carding of unusual ability desires position. Have had 12 years as carder, 2 years as erector of carding and spinning for Saco-Lowell. Good habits, steady worker. No. 4394.

WANT position as overseer carding or spinning, day or night. Now employed in good mill. Seven years as overseer. Excellent references. No. 4391.

WANT position as overseer carding. Now employed but have good reason for making a change. References to show ability and character. No. 4393.

SUPERINTENDENT open for position. Prior to being superintendent was in mill office, mill engineering, textile school work in all departments of mill. Experienced in cotton mill machine shop work, and as overseer carding. Good executive. References. No. 4392.

COTTON CLASSER of 15 years' experience wishes position as classer in large mill or classer and general office man in smaller mill. Best of references as to character and ability. No. 4395.

WANT position as superintendent, or good place as overseer carding and spinning. Excellent record of past service. Good references. No. 4396.

OVERSEER WEAVING would like to correspond with mill needing first-class man for this department. Good references. No. 4397.

WANT position as overseer carding or second hand if there is a chance for promotion. Age 40, married, good manager of help. Can give good references. No. 4398.

WANT position as overseer carding. Good record with first-class mills. Can come on short notice. Excellent references. No. 4399.

WANT position as overseer weaving or second hand in large room. Experienced on wide variety of plain and fancy goods. Good references. No. 4400.

WANT position as overseer weaving. Several years' experience as overseer. Good manager of help. Good references. No. 4401.

WANT position as superintendent. Ten years as superintendent; on present job 6 years. Was carder 12 years with some of the best mills; long experience in both yarn and cloth mills from waste reworking systems to staple cotton and from coarse duck drills and osnaburgs to fine fabrics. Can give best of references. No. 4402.

CHIEF ENGINEER and master mechanic wants position with good mill. Have had 17 years' experience in cotton mill steam and electric power plants, ranging in size from 500 to 1,500 horsepower; 12 years as master mechanic, 4 years as machinist in navy yard at Charleston. No. 4404.

DESIGNER AND WEAVER wants position where he can handle both positions. Experienced in fine weaving and designing, drawing-in and slashing. No. 4405.

WEAVER of unusual ability and excellent record wants position as overseer good weave room. Experienced, capable and reliable. Good references. No. 4409.

WANT position as carder, spinner or master mechanic. Thoroughly trained in each department. Correspondence solicited. No. 4405.

WANT position as carder or spinner, or both. Have had long experience in good mills and can get excellent results. No. 4406.

MAN with 7 years' experience in mill, five years handling mill supplies and five years as bookkeeper in mill office wants position as purchasing agent. Would accept well paying place as supply room man. No. 4407.

CLASSIFIED LIST OF ADVERTISERS

- AIR CONDITIONERS**—
American Moistening Co.
The Bahnsen Co.
Carrier Engineering Co.
Parks-Cramer Co.
- ALBONE**—
Roessler & Haaslachner.
- ARCHITECTS & MILL ENGINEERS**—
ARTESIAN WELLS—
Virginia Machinery & Well Co., Inc.
Luckwood, Greene & Co.
Sirrins & Co., J. E.
- ASH HANDLING EQUIPMENT**—
Link-Belt Co.
- AUTOMATIC FEEDS FOR COTTON**—
Saco-Lowell Shops.
Whitin Machine Works.
- AUTOMATIC STOP MOTION**—
Eclipse Textile Devices, Inc.
- AUTOMATIC YARN CLEANER**—
Eclipse Textile Devices, Inc.
- BALL-BEARING**—
Fafnir Bearing Co.
S. K. F. Industries, Inc.
- BALERS**—
Economy Baler Co.
- BALING PRESSES**—
Economy Baler Co.
- BANDS AND TAPE**—
American Textile Banding Co.
- BANKS**—
American Trust Co.
- BEAMING AND WARPING MACHINERY**—
ERY—
Draper Corporation.
Easton & Burnham Machine Co.
T. C. Entwistle Co.
Saco-Lowell Shops.
- BEAM HEADS**—
Mossberg Pressed Steel Corp.
Saco-Lowell Shops.
- BEAMS (All Steel)**—
Mossberg Pressed Steel Corp.
Saco-Lowell Shops.
- BEAMING COMBS**—
Easton & Burnham Machine Co.
Steel Heddle Mfg. Co.
- BEARINGS, ROLLER**—
Hyatt Roller Bearing Co.
- BEARINGS, SHAFT**—
Fafnir Bearing Co.
Hyatt Roller Bearing Co.
William Sellers & Co., Inc.
Wood's, T. B. & Sons Co.
- BEARINGS, TEXTILE MACHINERY**—
Fafnir Bearing Co.
Hyatt Roller Bearing Co.
- BELT CONVEYORS**—
Link-Belt Co.
- BELT TIGHTENERS**—
Link-Belt Co.
Wood's, T. B. & Sons Co.
- BELTING**—
Charlotte Leather Belting Co.
Chicago Belting Co.
Druid Oak Belting Co.
Grant Leather Corp.
Graton & Knight Mfg. Co.
E. F. Houghton & Co.
Edward R. Ladew Co.
I. B. Williams & Sons.
- BELT, CEMENT**—
Chicago Belting Co.
E. F. Houghton & Co.
Edward R. Ladew Co.
Graton & Knight Mfg. Co.
I. B. Williams & Sons.
- BELT LACING**—
Chicago Belting Co.
Edward R. Ladew Co.
E. F. Houghton & Co.
Graton & Knight Mfg. Co.
- BELTING, LINK**—
Link-Belt Co.
- BENCH DRAWERS, STEEL**—
Lupton's, David. Sons Co.
- BENCH LEGS, PRESSED STEEL**—
Lupton's, David. Sons Co.
- BICARBONATE OF SODA**—
Mathieson Alkali Works, Inc.
- BLEACHERIES**—
Sayles Finishing Plants, Inc.
- BLEACHING MATERIALS**—
Arabol Mfg. Co.
Arnold, Hoffman & Co., Inc.
Atlantic Dyestuff Co.
Borne, Scrymser Co.
Bosson & Lane.
J. B. Ford Co.
National Aniline & Chemical Co.
Roessler & Haaslachner Chem. Co.
L. Sonneborn Sons, Inc.
United Chemical Products Co.
Wolf, Jacques & Co.
- BOBBIN HOLDERS**—
Fournier & Lemoine.
- BOBBINS AND SPOOLS**—
Courtney, The Dana S., Co.
David Brown Co.
Jordan Mfg. Co.
Lesterhire Spool & Mfg. Co.
Lowell Shuttle Co.
Mossberg Pressed Steel Corp.
Walter L. Parker Co.
Steel Heddle Manufacturing Co.
—See also Spools & Bobbins.
- BOBBIN SAVING TREATMENT**—
The Textilac Co.
- BOXES**—
Wilts Veneer Co.
- BOX SHOOKS**—
Wilts Veneer Co.
- SLOWERS AND BLOWERS SYSTEMS**—
Carrier Engineering Corp.
Parks-Cramer Co.
- BRETON MINERAL OIL**—
Borne, Scrymser Co.
- BRUSHES**—
Curtis & Marble Machine Co.
- BRUSHING MACHINES**—
Curtis & Marble Machine Co.
- BUCKING MACHINERY**—
Terrell Machine Co.
- CALENDERS**—
H. W. Butterworth & Sons Co.
B. F. Perkins & Son, Inc.
- CALENDER ROLL GRINDERS**—
B. S. Roy & Son Co.
- CALENDER ROLLS**—
B. F. Perkins & Son, Inc.
- CARDS**—
Woonsocket Machine & Press Co., Inc.
Saco-Lowell Shops.
Whitin Machine Works.
Howard Bros. Mfg. Co.
- CARD CLOTHING**—
Ashworth Bros.
- CARD GRINDING MACHINERY**—
Easton & Burnham Machine Co.
Dronsfeld Bros.
- CARDING MACHINERY**—
T. C. Entwistle Co.
Roy & Son Co., B. S.
Saco-Lowell Shops.
Whitin Machine Works.
Woonsocket Machine & Press Co., Inc.
- CARRIER APRONS**—
Link-Belt Co.
- CAUSTIC SODA**—
Arnold, Hoffman & Co., Inc.
Mathieson Alkali Works, Inc.
- CHAIN BELTS AND DRIVES**—
Link-Belt Co.
Morse Chain Co.
- CHEMICALS**—
Borne, Scrymser Co.
J. B. Ford Co.
International Chemical Co.
Mathieson Alkali Works, Inc.
Seydel-Thomas Co.
L. Sonneborn Sons, Inc.
- CLEANING MACHINES**—
Carolina Specialty Co.
- CLOTH PILERS**—
B. F. Perkins & Son, Inc.
- CLOTH PRESSES**—
Economy Baler Co.
- CLUTCHES, FRICTION**—
Wood's, T. B. & Sons Co.
- CLOTH WINDERS AND DOUBLERS**—
Curtis & Marble Machine Co.
- CLUTCH SPINDLES**—
Fournier & Lemoine.
- COAL**—
Sugar Creek Coal Sales Co.
- COAL HANDLING MACHINERY**—
Link-Belt Co.
- COMBS**—
Steel Heddle Mfg. Co.
- COMBS (Beamers, Warpers, Slashers)**—
T. C. Entwistle Co.
Easton & Burnham Machine Co.
- COMBERS**—
John Hetherington & Sons, Ltd.
- COMMISSION MERCHANTS**—
Catlin & Co.
J. H. Lane & Co.
Mauney-Steel Co.
Paulson-Linkroum & Co.
Ridley, Watts & Co.
The Farish Co.
- COMPRESSORS (AIR)**—
Allis-Chalmers Mfg. Co.
- CONDENSERS**—
Allis-Chalmers Mfg. Co.
- CONDITIONING MACHINES**—
American Moistening Co.
- CONDUIT FITTINGS**—
Chicago Fuse Mfg. Co.
- CONES, PAPER**—
Sonoco Products Co.
- CONE VISE COUPLINGS**—
William Sellers & Co., Inc.
- CONVEYING SYSTEMS**—
Link-Belt Co.
- COOLERS (AIR)**—
—See Humidifying Apparatus.
- COTTON**—
Jackson, Hill & Co.
Lesser-Goldman Cotton Co.
Lineberger Bros.
Rose Bros.
Sanders, Orr & Co.
Stewart Bros. Cotton Co.
Tanner & Jones.
Wm. & York Wilson.
H. H. Wolfe & Co.
- COTTON MACHINERY**—
Ashworth Bros.
Atherton Pin Grid Bar Co.
Barber-Colman Co.
Carolina Specialty Co.
Crompton & Knowles Loom Works.
Dixon Lubricating Saddle Co.
Draper Corp.
Fales & Jenks Machine Co.
H. & B. American Machine, Inc.
T. C. Entwistle Co.
Hopdale Mfg. Co.
Metallic Drawing Roll Co.
National Ring Traveler Co.
Roy & Son, B. S.
Easton & Burnham Machine Co.
Saco-Lowell Shops.
Stafford Co., The.
Universal Winding Co.
Whitin Machine Works.
Whitinsville Spinning Ring Co.
Tolhurst Machine Works.
Terrell Machine Co.
- Woonsocket Machine & Press Co., Inc.**
- Cyclone Fence Co.**
- COTTON OPENERS AND LAPPERS**—
Carolina Specialty Co.
Saco-Lowell Shops.
Whitin Machine Works.
Woonsocket Machine & Press Co., Inc.
- COTTON SOFTENERS**—
Arabol Mfg. Co.
Arnold, Hoffman & Co., Inc.
Borne, Scrymser Co.
Bosson & Lane.
E. F. Houghton & Co.
L. Sonneborn Sons, Inc.
Seydel-Thomas Co.
Wolf, Jacques & Co.
- COTTON WASTE MACHINERY**—
Woonsocket Machine & Press Co., Inc.
Saco-Lowell Shops.
Whitin Machine Works.
- COUNTERS (Revolution, Hank, Pick, etc.)**—
The Root Co.
- COUPLINGS, SHAFT**—
William Sellers & Co., Inc.
Wood's, T. B. & Sons Co.
- CRANES**—
Link-Belt Co.
- DESKS, STEEL FACTORY**—
Lupton's, David. Sons Co.
- DISINFECTANTS**—
Carolina Specialty Co.
L. Sonneborn Sons, Inc.
- DOBBY CHAIN**—
Crompton & Knowles Loom Works.
Rice Dobby Chain Co.
- DOFFING BOXES**—
Rogers Fibre Co.
- DOUBLERS**—
Saco-Lowell Shops.
Universal Winding Co.
- DOORS, STEEL**—
Lupton's, David. Sons Co.
- DRAWING ROLLS**—
Metallic Drawing Roll Co.
- DRINKING FOUNTAINS**—
Puro Sanitary Drinking Fountain Co.
- DRIVES, SILENT CHAIN**—
Link-Belt Co.
Morse Chain Co.
- DROP WIRES**—
Crompton & Knowles Loom Works.
Griet Mfg. Co.
Hopdale Mfg. Co.
Mossberg Pressed Steel Corp.
R. I. Warp Stop Equipment Co.
- DRYERS (Centrifugal)**—
American Laundry Machinery Co.
Roy & Son Co., B. S.
Tolhurst Machine Works.
- DYEING, DRYING, BLEACHING AND FINISHING MACHINERY**—
American Laundry Machinery Co.
H. W. Butterworth & Sons Co.
Franklin Process Co.
Klauder-Weldon Dye Machinery Co.
Perkins, B. F., & Sons, Inc.
- DYESTUFFS AND CHEMICALS**—
Atlantic Dyestuff Co.
Borne, Scrymser Co.
Bosson & Lane.
E. I. du Pont de Nemours & Co., Inc.
Metz, H. A., & Co.
National Aniline & Chemical Co.
Roessler & Haaslachner Chemical Co.
L. Sonneborn Sons, Inc.
United Chemical Products Co.
Wolf, Jacques & Co.
- EYE WORKS**—
Sayles Finishing Plants, Inc.
- ECLIPSE VAN NESS DYEING MACHINE**—
Eclipse Textile Devices, Inc.
- ELECTRIC CONTRACTORS**—
Huntington & Guerry.
- ELECTRIC FANS**—
Allis-Chalmers Mfg. Co.
General Electric Co.
Westinghouse Electric & Mfg. Co.
- ELECTRIC HOISTS**—
Allis-Chalmers Mfg. Co.
Link-Belt Co.
- ELECTRIC LIGHTING**—
Allis-Chalmers Mfg. Co.
Cooper-Hewitt Electric Co.
General Electric Co.
Huntington & Guerry.
Westinghouse Electric & Mfg. Co.
- ELECTRIC MOTORS**—
Allis-Chalmers Mfg. Co.
General Electric Co.
Westinghouse Electric & Mfg. Co.
- ELECTRIC SUPPLIES**—
Chicago Fuse Mfg. Co.
Cooper-Hewitt Electric Co.
General Electric Co.
Westinghouse Electric & Mfg. Co.
- ELEVATORS**—
Link-Belt Co.
- ENGINEERS, MILL**—
—See Architects and Mill Engineers
- ENGINEERS (VENTILATING)**—
Bahnsen Co.
Parks-Cramer Co.
- ENGINES (STEAM, OIL, GAS, PUMP, ING)**—
Allis-Chalmers Mfg. Co.
Sydnor Pump & Well Co.
—See also Ventilating Apparatus.
- EXPERT TEXTILE MECHANIC**—
J. D. Hollingsworth.
- EXTRACTORS**—
American Laundry Machinery Co.
Tolhurst Machine Works.
- FENCES**—
Anchor Post Iron Co.
- Page Fence and Wire Products Assn.**
- FENCES (Iron and Wire)**—
Anchor Post Iron Works.
Cyclone Fence Co.
- Page Fence and Wire Products Assn.**
- FINISHERS**—
Sayles Finishing Plants, Inc.
- FINISHING COMPOUNDS**—
Arnold, Hoffman & Co., Inc.
Borne, Scrymser Co.
Seydel-Thomas Co.
- FINISHING MACHINERY**—
B. F. Perkins & Son, Inc.
- FINISHING MACHINERY**—
—See Dyeing, Drying, Bleaching and Finishing.
- FIRE INSURANCE**—
Fireman's Mutual Insurance Co.
- FLAT WALL PAINT**—
E. I. du Pont de Nemours & Co., Inc.
- FLOOR STANDS**—
Wood's, T. B. & Sons Co.
- FLUTED ROLLS**—
Fales & Jenks Machine Co.
Woonsocket Machine & Press Co., Inc.
Whitin Machine Works.
- FLYER PRESSERS AND OVERHAULERS**—
Southern Spindle & Flyer Co.
Whitin Machine Works.
Woonsocket Machine & Press Co., Inc.
- FLYERS**—
Saco-Lowell Shops.
Southern Spindle & Flyer Co.
Whitin Machine Works.
- FRAMES**—
Steel Heddle Mfg. Co.
- FRICTION CLUTCHES**—
Wood's, T. B. & Sons Co.
—See Clutches.
- FUSES**—
Chicago Fuse Mfg. Co.
- GATES**—
Anchor Post Iron Works.
- GEARING, SILENT FLEXIBLE**—
Link-Belt Co.
- GEARS**—
Dan Gear Co.
- GRATE BARS**—
Thomas Grate Bar Co.
- GRAB BUCKETS**—
Link-Belt Co.
- GREASES**—
Masury-Young Co.
N. Y. & N. J. Lubricant Co.
L. Sonneborn Sons, Inc.
- GRINDING AND POLISHING MACHINES**—
Easton & Burnham Machine Co.
Roy, B. S., & Son Co.
- HANGERS (Ball and Socket)**—
William Sellers & Co., Inc.
- HANGERS, SHAFT**—
Fafnir Bearing Co.
Hyatt Roller Bearing Co.
William Sellers & Co., Inc.
Wood's, T. B. & Sons Co.
- HARDWARE SUPPLIES**—
Textile Mill Supply Co.
- HARNESSTWINE**—
Garland Mfg. Co.
- HARNESSTWINE AND FRAMES**—
—See Heddles and Frames.
- HEDDLES AND FRAMES**—
Garland Mfg. Co.
Steel Heddle Mfg. Co.
L. S. Watson Mfg. Co.
- HOPPER-FEED HAND STOKERS**—
The J. H. Williams Co.
- HUMIDIFYING AND AIR CONDITIONING APPARATUS**—
American Moistening Co.
The Bahnsen Co.
Carrier Engineering Corp.
Parks-Cramer Co.
- HUMIDITY CONTROLLER**—
American Moistening Co.
The Bahnsen Co.
Carrier Engineering Corp.
Parks-Cramer Co.
- HYDRO-EXTRACTORS**—
American Laundry Machinery Co.
Tolhurst Machine Co.
- INDIGO DYEING MACHINERY**—
H. W. Butterworth & Sons Co.
- KNITTING MACHINERY**—
Hepworth, John W., & Co.
- KNITTING NEEDLES & SUPPLIES**—
Williams, Chauncey A.
- KNIT GOODS, FINISHING MACHINES**—
Kauamagrap Co.
Marrow Machine Co., The.
- KNOTTERS**—
Barber-Colman Co.
Mill Devices Co.
Saco-Lowell Shops.
- LAUNDRY MACHINERY**—
American Laundry Machinery Co.
Tolhurst Machine Works.
- LANDSCAPE ARCHITECT**—
E. S. Draper.
- LEATHER PACKINGS**—
Chicago Belting Co.
Edward R. Ladew Co.
E. F. Houghton & Co.
Graton & Knight Mfg. Co.
- LEATHER LOOM PICKERS**—
E. H. Jacobs Mfg. Co.
- LEATHER STRAPPING**—
Edward R. Ladew Co.
Graton & Knight Mfg. Co.
- LEATHER STRAPS**—
E. H. Jacobs Mfg. Co.
- LIQUID CHLORINE**—
Arnold, Hoffman & Co., Inc.
Mathieson Alkali Works, Inc.

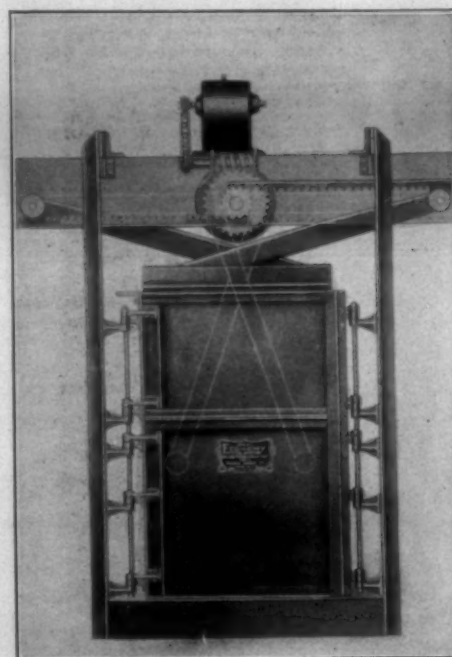
CLASSIFIED LIST OF ADVERTISERS

- LOOMS—**
Crompton & Knowles Loom Works.
Draper Corp.
Hopdale Mfg. Co.
Saco-Lowell Shops.
Stafford Co., The.
- LOOM BEAMS AND HEADS—**
Mossberg Pressed Steel Corp.
- LOOM DROP WIRES—**
Crompton & Knowles Loom Works.
Gratist Mfg. Co.
Hopdale Mfg. Co.
Mossberg Pressed Steel Corp.
Steel Heddle Mfg. Co.
R. I. Warp Stop Equipment Co.
- LOOM HARNESS—**
Atlanta Harness and Reed Mfg. Co.
Garland Mfg. Co.
High Point Loom Reed & Harness Co.
Palmetto Loom Harness and Reed Works.
Steel Heddle Mfg. Co.
- LOOM PICKERS—**
Edward R. Ladew Co.
E. H. Jacobs Mfg. Co.
Garland Mfg. Co.
Graton & Knight Mfg. Co.
- LOOM REEDS—**
Atlanta Harness and Reed Mfg. Co.
High Point Loom Reed & Harness Co.
Palmetto Loom Harness and Reed Works.
Steel Heddle Mfg. Co.
- LOOM SUPPLIES—**
E. H. Jacobs Mfg. Co.
- LUBRICANTS—**
Borne, Scrymser & Co.
N. Y. & N. J. Lubricant Co.
L. Sonneborn Sons, Inc.
- LUG STRAPS—**
E. H. Jacobs Mfg. Co.
- MACHINERY ENAMEL—**
E. I. du Pont de Nemours & Co., Inc.
- MANGLES—**
American Laundry Machinery Co.
H. W. Butterworth & Sons Co.
- MARKERS—**
Kaumagraph Co.
Marrow Machine Co.
- MEASURING AND FOLDING MACHINES—**
Curtis & Marble Machine Co.
- MERCERIZING MACHINERY—**
H. W. Butterworth & Sons Co.
- METAL PAINT—**
E. I. du Pont de Nemours & Co., Inc.
Wadsworth, Howland & Co., Inc.
- METALLIC ROLLS—**
Metallic Drawing Roll Co.
- METERS—**
Allis-Chalmers Mfg. Co.
General Electric Co.
Westinghouse Electric & Mfg. Co.
- MILL ARCHITECTS—**
See Architects.
- MILL CONSTRUCTION—**
David Lupton's Sons, Inc.
- MILL LIGHTING—**
See Electric Lighting.
- MILL STARCHES—**
Arnold, Hoffman & Co., Inc.
Corn Products Refining Co.
Penick & Ford, Ltd.
Keefer Starch Co.
Stein, Hall & Co.
- MILL SUPPLIES—**
Dixon Lubricating Saddle Co.
E. H. Jacobs Mfg. Co.
Garland Mfg. Co.
Textile Mill Supply Co.
Thomas Grate Bar Co.
- MILL WHITE—**
E. I. du Pont de Nemours & Co., Inc.
L. Sonneborn Sons, Inc.
Oliver Johnson & Co.
Wadsworth, Howland & Co., Inc.
- MOTORS—**
NAPPER ROLL GRINDERS—
B. S. Roy & Son Co.
Allis-Chalmers Mfg. Co.
General Electric Co.
Westinghouse Electric & Mfg. Co.
- OILS—**
Arnold, Hoffman & Co., Inc.
Borne, Scrymser & Co.
E. F. Houghton & Co.
N. Y. & N. J. Lubricant Co.
Klipstein, A., & Co.
U. S. Oil Co.
Wadsworth, Howland & Co.
Wolf, Jacques & Co.
- ONE-PIECE FURNACE LININGS—**
The Cornish Co.
- OPENING MACHINERY—**
Carolina Specialty Co.
Saco-Lowell Shops.
- OVERSEAMING AND OVEREDGING MACHINES—**
Marrow Machine Co.
- OVERHAULERS—**
Southern Spindle & Flyer Co.
- PAINTS—**
Carolina Specialty Co.
E. I. du Pont de Nemours & Co., Inc.
L. Sonneborn Sons, Inc.
Oliver Johnson & Co.
Tripod Paint Co.
Wadsworth, Howland & Co.
- PARTITIONS, STEEL—**
Lupton's, David, Sons Co.
- PATENTS—**
Siggers & Siggers.
- PERBORATE OF SODA—**
Roessler & Hasslacher Chemical Co.
- PICKERS, LEATHER—**
Edward R. Ladew Co.
E. H. Jacobs Mfg. Co.
Garland Mfg. Co.
Graton & Knight Mfg. Co.
- PICKER STICKS—**
Garland Mfg. Co.
- PIPE AND FITTINGS—**
Parks-Cramer Co.
- PORTABLE ELEVATORS—**
Link-Belt Co.
- POWER TRANSMISSION MACHINERY—**
Allis-Chalmers Mfg. Co.
Hyatt Roller Bearing Co.
Fafnir Bearing Co.
Link-Belt Co.
Morse Chain Co.
William Sellers & Co., Inc.
Wood's, T. B., Sons Co.
- PREPARATORY MACHINERY (COTTON)—**
Saco-Lowell Shops.
Whitin Machine Works.
Woonsocket Machine & Press Co., Inc.
- PICKERS AND LAPPERS—**
Whitin Machine Works.
Woonsocket Machine & Press Co., Inc.
- PRESSES—**
Economy Baler Co.
Saco-Lowell Shops.
- PULLEYS, CAST IRON—**
William Sellers & Co., Inc.
Wood's, T. B., Sons Co.
- PUMPS—(Boiler Feed also Centrifugal)—**
Allis-Chalmers Mfg. Co.
Sydnor Pump & Well Co.
- PEROXIDE OF SODIUM—**
Roessler & Hasslacher.
- PRESSES—**
American Laundry Machinery Co.
Collins Bros.
- PUMPS—**
Virginia Machinery & Well Co., Inc.
- QUILLERS—**
Crompton & Knowles Loom Works.
Universal Winding Co.
Whitin Machine Works.
- QUILL CLEANERS—**
Terrell Machine Co.
- RAILINGS (Iron)—**
Anchor Post Iron Works
- READY BUILT HOMES—**
The Minter Homes Co.
- RECEPTACLES—**
Economy Baler Co.
Diamond State Fibre Co.
Rogers Fibre Co.
- RING SPINNING FRAMES—**
Fales & Jenks Machine Co.
Whitin Machine Works.
Saco-Lowell Shops.
- RING TRAVELERS—**
Dary Ring Traveler Co.
National Ring Traveler Co.
Victor Ring Traveler Co.
U. S. Ring Traveler Co.
- ROLLS—**
Fales & Jenks Machine Co.
The Whitin Machine Works.
Woonsocket Machine & Press Co., Inc.
Metallic Drawing Roll Co.
Saco-Lowell Shops.
Southern Spindle & Flyer Co.
- ROLLER BEARINGS—**
Fafnir Bearing Co.
Hyatt Roller Bearing Co.
- ROLLER CLOTH—**
Best, Edward H. & Co.
- ROOFING—**
Lupton's, David, Sons, Inc.
- ROVING CANS AND BOXES—**
Rogers Fibre Co.
- ROVING MACHINERY—**
Whitin Machine Works.
Woonsocket Machine & Press Co., Inc.
Saco-Lowell Shops.
- SADDLES—**
Dixon Lubricating Saddle Co.
- SANITARY EQUIPMENT—**
Vogel Co., Joseph A.
- SANITARY FOUNTAINS—**
See Drinking Fountains.
- SASH, STEEL—**
Lupton's, David, Sons Co.
- SCALLOP MACHINES—**
Marrow Machine Co.
- SCOURING POWDERS—**
Bosson & Lane.
Nichols Mfg. Co.
- SESQUICARBONATE OF SODA—**
Mathieson Alkali Works, Inc.
- SECTION BEAM HEADS—**
Mossberg Pressed Steel Corp.
- SELLING AGENTS (COTTON GOODS)—**
Amory, Browne & Co.
Converse & Co.
Curran & Barry.
Joshua L. Baily & Co.
W. H. Langley & Co.
Leslie, Evans & Co.
Tatum, Pinkham & Grooy
Wellington, Sears & Co.
- SEWING MACHINES—**
Marrow Machine Co.

ALL STEEL
Economy
FIRE PROOF

YARN
PRESS

Direct Motor Connected— Completely Inclosed Chambers
"JUST WHAT EVERY YARN MILL NEEDS"



This Economy yarn baling press is unquestionably the last word in baling press development.

Chamber completely inclosed—no openings. The chamber is made up of four sets of doors, so that the ends of the chamber open as well as the sides. The four doors, however, lock at two corners by a very simple locking device.

This new yarn press produces a bale 36" long by 24 wide, of 12 to 15 cubic feet, weighing about four hundred pounds and over, making it possible to produce bales 24 to 36 inches deep, weighing from two hundred and fifty to four hundred pounds and over. Chamber five feet deep. Equipped with a directly connected electric motor capable of pulling up to 10 horse torque, alternating current 2 or 3 phase, 50 or 60 cycle, 220 or 550 volt.

The end doors as well as the sides, swing out independently, leaving all four sides of the bale exposed.

We should like very much indeed to confer with you regarding this Economy yarn press, and assure you that you would receive satisfactory service. The users of press are well satisfied with this yarn press, because it is convenient to load with great pressure and rapid in operation. Very substantially constructed.

ECONOMY BALER CO.

Dept. S. T.
Ann Arbor, Mich.

Manufacturers Should Look Up the Advantages of Metallic Drawing Rolls

Over the leather system before placing orders for new machinery, or if contemplating an increase in production, have them applied to their old machinery. It is applied successfully to the following room machinery:

Railways	Detaching Roll for Combers
Sliver Lap Machines	Drawing Frames
Ribbon Lap Machines	Slubbers
Comber Draw Boxes	Intermediate Frames

**25 TO 33 PER CENT. MORE PRODUCTION
GUARANTEED**

For Prices and Circular Write to
The Metallic Drawing Roll Co.

Springfield - - - - - Mass.

CLASSIFIED LIST OF ADVERTISERS

SEWING MACHINES AND SUPPLIES—

Curtis & Marble Machine Co.

SHAFTING, HANGERS, ETC.—

—See Power Transmission Machinery.

SHAFTING—

Fafnir Bearing Co.
William Sellers & Co., Inc.
Wood's, T. B., Sons Co.

SHELL STITCH MACHINES—

Marrow Machine Co.
B. F. Perkins & Son, Inc.

SHELVING STEEL—

Lupton's, David, Sons Co.

SHUTTLES—

David Brown Co.

SHEET METAL WORK—

J. N. McCausland & Co.
Lowell Shuttle Co.
Draper Corp.
Hopdale Mfg. Co.
Shambow Shuttle Co.
L. S. Watson Mfg. Co.
The J. H. Williams Co.

SILENT CHAIN DRIVE—

Link-Belt Co.
Morse Chain Co.

SINGING MACHINERY—

H. W. Butterworth & Sons Co.

SIZING STARCHES, GUMS—

Arnold, Hoffman & Co., Inc.
Atlantic Dyestuff Co.
Arabol Mfg. Co.
L. Sonneborn Sons, Inc.
Stein, Hall & Co.

SIZING COMPOUNDS—

Arnold, Hoffman & Co., Inc.
Borne, Scrymser Co.
Bosson & Lane.
A. E. Staley Mfg. Co.
Corn Products Refining Co.
Drake Corp.
Hawley's Laboratories.
Seydel-Thomas Co.
United Chemical Products Co.
John P. Marston Co.
H. A. Metz & Co., Inc.
Seydel Chemical Co.
Seydel-Thomas Co.
Wolf, Jacques & Co.

SKYLIGHT, ROLLED STEEL—

Lupton's, David, Sons Co.

SLASHER COMBS—

Easton & Burnham Machine Co.
High Point Loom Reed & Harness Co.
Steel Heddle Mfg. Co.

SOFTENERS (COTTON)—

Arnold, Hoffman & Co., Inc.
United Chemical Products Corp.
Arabol Mfg. Co.
Bosson & Lane.
Wolf, Jacques & Co.
Metz, H. A., & Co., Inc.
L. Sonneborn Sons, Inc.
Seydel Chemical Co., The.
U. S. Bobbin & Shuttle Co.

SOFTENERS—

Arnold, Hoffman & Co., Inc.
Borne, Scrymser Co.
L. Sonneborn Sons, Inc.
Seydel-Thomas Co.

SKEWERS—

U. S. Bobbin & Shuttle Co.
Courtney, The Dana S., Co.
Jordan Mfg. Co.
Walter L. Parker Co.
David Brown Co.

SLASHERS AND EQUIPMENT—

Saco-Lowell Shops.

SOAPS—

Arabol Mfg. Co.
Arnold, Hoffman & Co., Inc.
Kilpatrick, A., & Co.
L. Sonneborn Sons, Inc.
United Chemical Products Co.

SODA ASH—

J. B. Ford Co.
Mathieson Alkali Works, Inc.

SOFTENERS (OIL)—

Bosson & Lane.
E. F. Houghton & Co.

SOLOZONE—

Roessler & Hasselacher Chemical Co.

SPINDLES—

Draper Corp.
Easton & Burnham Machine Co.
Fales & Jenks Machine Co.
Woonsocket Machine & Press Co., Inc.
Saco-Lowell Shops.
Southern Spindle & Flyer Co.
Whitin Machine Works.

SPINNING FRAMES—

SPINDLE REPAIRERS—
Fournier & Lemoine.
Fales & Jenks Machine Co.
SPINNING FRAME SADDLES—
Saxon Lubricating Saddle Co.

SPINNING RINGS—

Saco-Lowell Shops.
Draper Corp.
Fales & Jenks Machine Co.
Pawtucket Spinning Ring Co.
Whitin Machine Works.
Whitinsville Spinning Ring Co.

SPOOLS—

David Brown Co.
U. S. Bobbin & Shuttle Co.
Courtney, The Dana S., Co.
Jordan Mfg. Co.
Lestershire Spool & Mfg. Co.
Steel Heddle Mfg. Co.
Walter L. Parker Co.
—See Bobbins, Spools, Shuttles.

SPROCKETS, SILENT CHAIN—

Link-Belt Co.

SPOOLERS—

Draper Corp.
Easton & Burnham Machine Co.
Saco-Lowell Shops.
Whitin Machine Works.

SPINNING TAPES—

American Textile Banding Co.
Barber Mfg. Co.
Georgia Webbing & Tape Co.

STARCH—

Arnold, Hoffman & Co., Inc.
Corn Products Refining Co.
Keefer Starch Co.
Penick & Ford, Ltd.
Stein, Hall & Co.

STOCKS AND BONDS—

American Trust Co.

STRIPPER CARDS—

L. S. Watson Mfg. Co.

SWITCH BOXES—

Chicago Fuse Mfg. Co.

TANKS—

Virginia Machinery & Well Co., Inc.

TAPE—

Georgia Webbing & Tape Co.

TEXTILE MACHINERY SPECIALTIES—

Cooker Machine and Foundry Co.
Hyatt Roller Bearing Co.

TEXTILE SODA—

J. B. Ford Co.

TEMPLES—

Draper Corp.
Hopdale Mfg. Co.

TESTING APPARATUS (Fabrics)—

B. F. Perkins & Son, Inc.
Henry L. Scott & Co.

TRADEMARKING MACHINES—

Curtis & Marble Machine Co.

TRANSFER STAMPS—

Kaumagraph Co.

TRANSMISSION BELTS—

Charlotte Leather Belting Co.
Chicago Belting Co.

TRANSVERSE LEATHER CO.—

Edward R. Ladew Co.
E. F. Houghton & Co.

TRANSMISSION MACHINERY—

Allis-Chalmers Mfg. Co.
Tolhurst Machine Works.

William Sellers & Co., Inc.

Wood's, T. B., Sons Co.

TOILETS—

Vogel, Jos. A., Co.

TOOL CABINETS AND STANDS.

STEEL—

Lupton's, David, Sons Co.

TRANSMISSION MACHINERY—

Hyatt Roller Bearing Co.

TRANSMISSION SILENT CHAIN—

Link-Belt Co.
Morse Chain Co.

TRUCKS (Mill)—

Diamond State Fibre Co.
Rogers Fibre Co.

TUBES, PAPER—

Sonoco Products Co.

TURBINES (STEAM)—

Allis-Chalmers Mfg. Co.

TWISTING MACHINERY—

Draper Corp.
Fales & Jenks Machine Co.

Saco-Lowell Shops.
Whitin Machine Works.

TWISTING TAPES—

Barber Mfg. Co.

UNDERWEAR MACHINES—

Marrow Machine Co.

VENTILATING APPARATUS—

American Moistening Co.
Parks-Cramer Co.

VENTILATING FANS—

B. F. Perkins & Son, Inc.

WARPERS—

Cooker Machine & Foundry Co.
Crompton & Knowles Loom Works

Draper Corp.

Easton & Burnham Machine Co.

Saco-Lowell Shops.

T. C. Entwistle Co.

WARP DRESSING—

Arnold, Hoffman & Co., Inc.

Bosson & Lane.

Drake Corp.

L. Sonneborn Sons, Inc.

Seydel-Thomas Co.

Wadsworth, Howland & Co., Inc.

WARP STOP MOTION—

Draper Corp.

Hopdale Mfg. Co.

R. I. Warp Stop Equipment Co.

WARP TYING MACHINERY—

Barber-Colman Co.

WASHERS (FIBRE)—

Rogers Fibre Co.

WASTE BINS, STEEL—

Lupton's, David, Sons Co.

WASTE RECLAIMING MACHINERY—

Saco-Lowell Shops.
Whitin Machine Works.

Woonsocket Machine & Press Co., Inc.

WASTE PRESSES—

Economy Baler Co.

WATER INTAKE SCREENS—

Link-Belt Co.

WATER WHEELS—

Allis-Chalmers Mfg. Co.

WEIGHTING COMPOUNDS—

Arabol Mfg. Co.

Atlantic Dyestuff Co.

Bosson & Lane.

Marston, John P.

Metz, H. A.

Jacques, Wolf & Co.

Seydel-Thomas Co.

WELL DRILLERS—

Sydor Pump & Well Co.

Virginia Machinery & Well Co., Inc.

WHIZZERS—

Tolhurst Machine Works.

WINDERS—

Easton & Burnham Machine Co.

Saco-Lowell Shops.

Universal Winding Co.

WINDOWS—

Lupton's, David, Sons, Inc.

Carrier Engineering Corp.

Parks-Cramer Co.

WINDOW GUARDS—

Cyclone Fence Co.

WINDOW FRAMES AND SASH.

STEEL—

Lupton's, David, Sons Co.

WIRE PARTITIONS—

Cyclone Fence Co.

YARNS—

Paulson, Linkroom & Co.

Mauney-Steele Co.

YARN TENSION DEVICE—

Eclipse Textile Devices, Inc.

YARN PRESSES—

Economy Baler Co.

YARN TESTING MACHINES—

H. L. Scott & Co.

NORWOOD

Mechanical Filtration

Gravity or Pressure Types

Clean, Clear Water Guaranteed

Norwood Engineering Co.

Florence, Mass., U. S. A.

Chas. M. Setzer, Sou. Rep. Charlotte, N. C.

Ashworth Brothers, Inc.

Tempered and Side Ground Card Clothing

TOPS RECLOTHED

LICKERINS REWOUND

COTTON MILL MACHINERY REPAIRED

For Prompt Service send your Top Flats to be reclothed and your Lickerins to be rewound to our nearest factory. We use our own special point hardened lickerin wire.

Graham and Palmer Sts., Charlotte, N. C.

240 River Street, Greenville, S. C.

127 Central Avenue, Atlanta, Ga.



Specify
"UCP" on your
Requisitions

These Products are the Reliable
Standards of Uniformity De-
manded by the Leading Textile
Mills

Dyestuffs Softeners

Sizes Oils Chemicals

UNITED CHEMICAL PRODUCTS
CORPORATION

Importers, Exporters and Manufacturers

York & Colgate Sts. Jersey City, N. J.
Southern Office 307 Commercial National Bank Building Charlotte, N. C.
Pawtucket, R. I. Norwalk, Conn.
Chicago, Ill.

Morland Size, Inc.

"The Warps Best Friend"

Moreland Sizing Company

Established 1908

Office: 206 Andrews Low Bldg.

Spartanburg, S. C.

S. C. THOMAS & J. T. MORELAND, Owners

UNIFORM IN APPLICATION

Victrolyn

A dependable assistant in sizing Cotton Warps

SOLE MANUFACTURERS

Bosson & Lane

Works and Office, Atlantic, Mass.

SHEETING AND DRILLS WANTED IN QUANTITY

36" 40x40—6.15 36" 48x48—4.00
36" 48x48—5.50 40" 56x60—3.60

Also 56"—60" Drills and Sheetings

Manufacturers' Selling Agents, Distributors and Commission Merchants
Correspondence Solicited

THE LANDERS BROS. CO., Toledo, Ohio

PULLEYS
 HANGERS

The **WOOD** Line

SONS CO.

CLUTCHES

FLANGE OR PLATE COUPLINGS

Designed to with-
stand severe line-
shaft service. Flang-
ed to protect the
workman from be-
ing caught on the
bolt heads or nuts.
Machined all over
to template, making
them interchange-
able and therefore
easily duplicated.

Interchangeability is a feature that has made

THE **WOOD** LINE

of Power Transmission Machinery the
standard in so many of the country's largest
plants. Catalogue on request

T. B. Wood's Sons Co.
CHAMBERSBURG, PA.
New England Branch and Warehouse:
624 Main Street, Cambridge, Mass.
Southern Office:
312 Masonic Bldg., Greenville, S. C.
MILTON G. SMITH, Sou Sales Agent,
Greenville, S. C.

COUPLINGS

POWER TRANSMITTING MACHINERY

**for durability
and service**



Leatheroid Receptacles

CANS - CARS - BOXES AND BARRELS

ROGERS FIBRE CO.

Sold Through Southern Supply Dealers

121 Beach St., Boston

1024 Filbert St., Philadelphia

78 Fifth Ave., New York

Morse Chain Co.

Textile Chain Drives

Charlotte, N. C.

Ithaca, N. Y.

Boston, Mass.



NEW FLORIDA TRAIN

"LAND OF THE SKY" SPECIAL

via

Southern Railway System

Through sleeping car from Charlotte to Jacksonville, via Columbia and Savannah, thence A. C. L. R. R., with connections at Jacksonville for all Florida points.

Schedule

Southbound	Northbound
5:20 p. m. Lv. Charlotte	Ar. 9:30 a. m.
10:55 p. m. Lv. Columbia	Lv. 5:40 a. m.
3:55 a. m. Ar. Savannah	Lv. 12:45 a. m.
8:15 a. m. Ar. Jacksonville	Lv. 8:15 p. m.

Dining car service and observation car between Charlotte and Columbia. Excellent service to and from Florida.

Round trip Winter Excursion tickets on sale to all Florida and other Southern resorts daily up to April 30th, limited to return until June 15, 1925. Stop-overs permitted going and returning. Write for descriptive booklets.

For further information and sleeping car reservations call on any Southern Railway Agent.

W. F. COCHRANE
City Ticket Agent
237 West Trade St.
Telephone 20
Charlotte, N. C.

R. H. GRAHAM
Division Passenger Agent
237 West Trade St.
Telephone 3860 Branch 7
Charlotte, N. C.